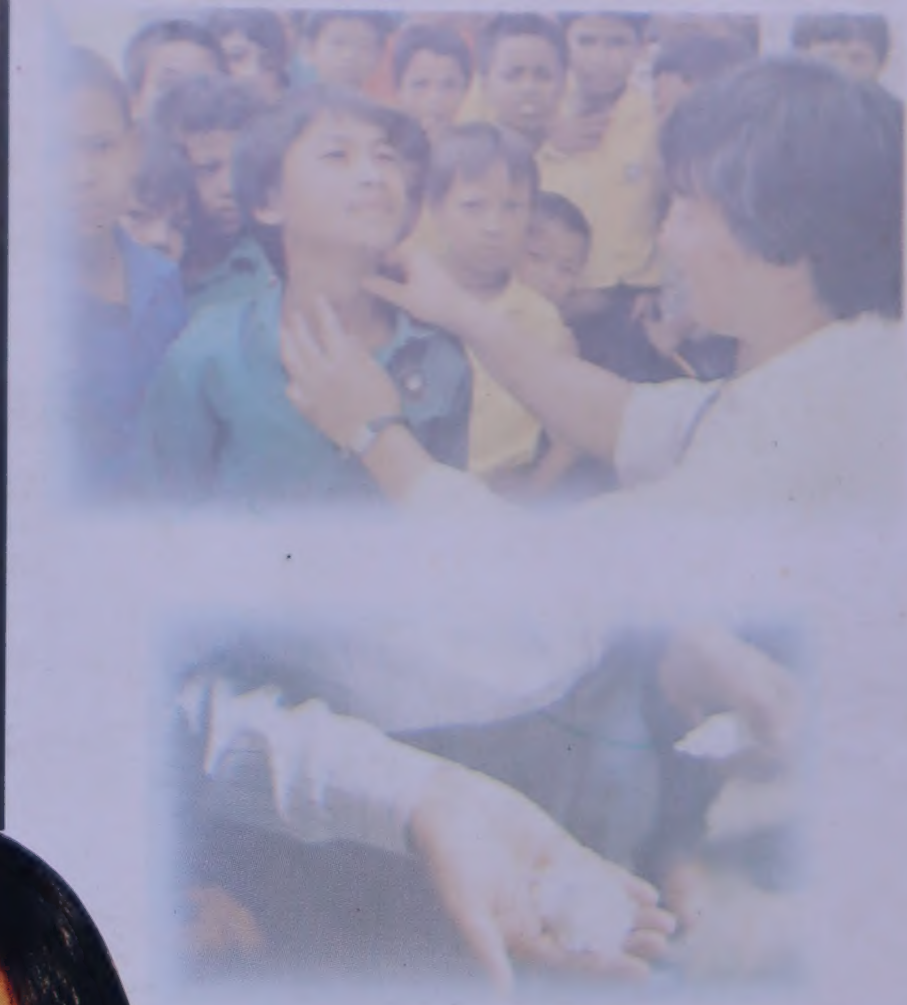


# **PARTNERSHIP TO END HIDDEN HUNGER**



**COLLABORATION OF STAKEHOLDERS  
IN SUSTAINING THE ELIMINATION OF  
IODINE DEFICIENCY DISORDERS**

**Dhaka, Bangladesh  
9-12 April 1995.**





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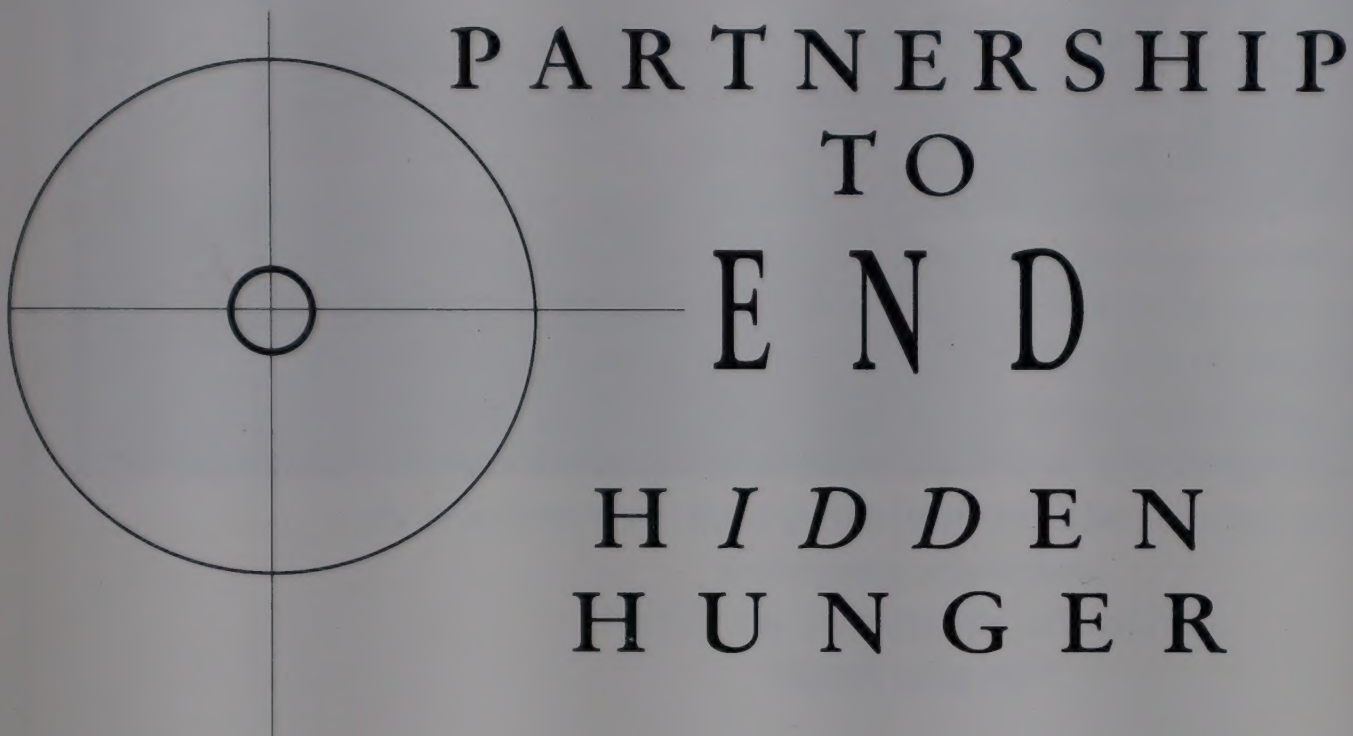
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COLLABORATION OF STAKEHOLDERS  
IN SUSTAINING THE ELIMINATION OF  
IODINE DEFICIENCY DISORDERS

DHAKA, BANGLADESH 9-12 th April 1995

Organized and Sponsored by

CANADIAN  
INTERNATIONAL  
DEVELOPMENT  
AGENCY  
(CIDA)

INTERNATIONAL  
COUNCIL  
FOR CONTROL  
OF  
IODINE DEFICIENCY  
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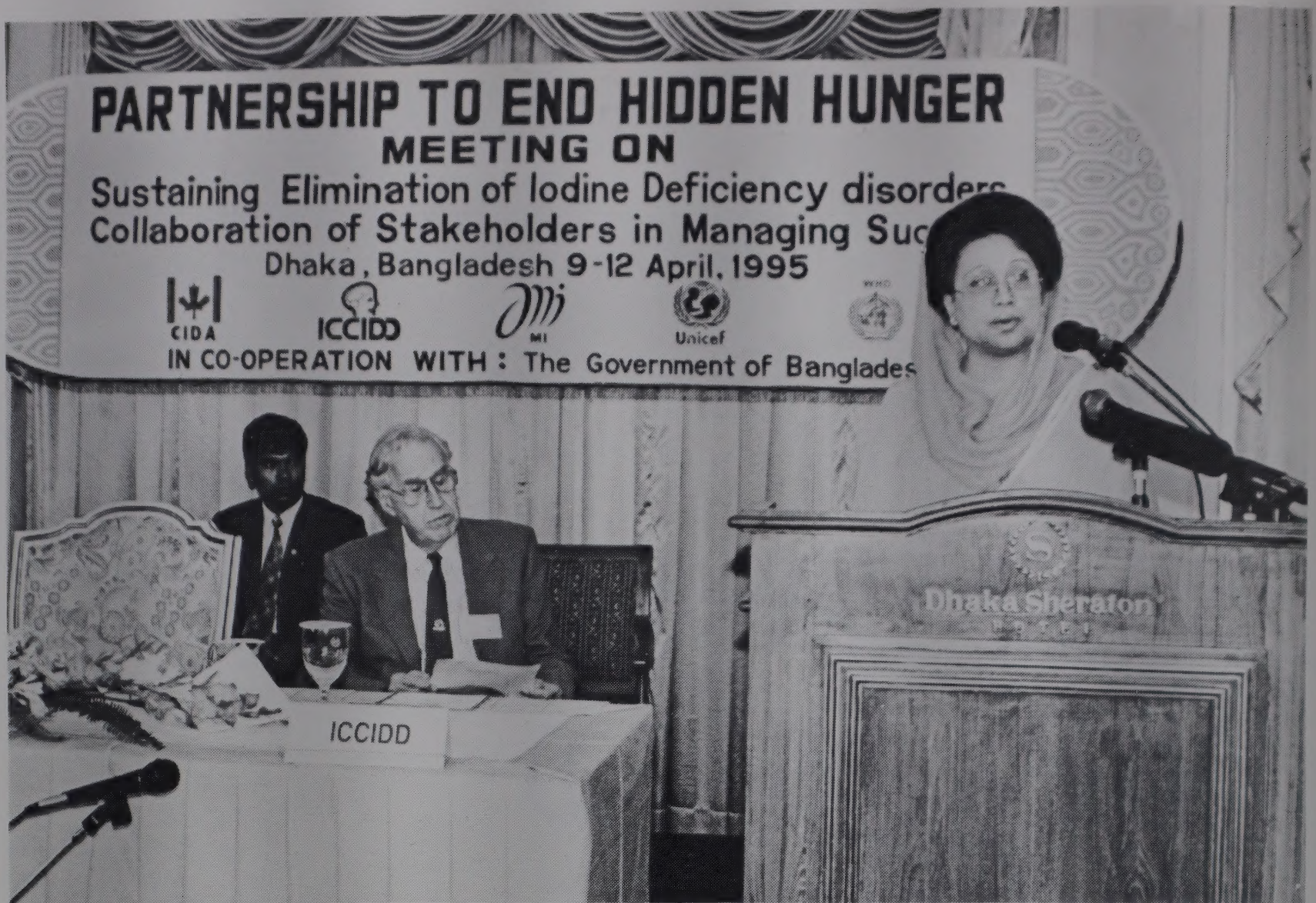
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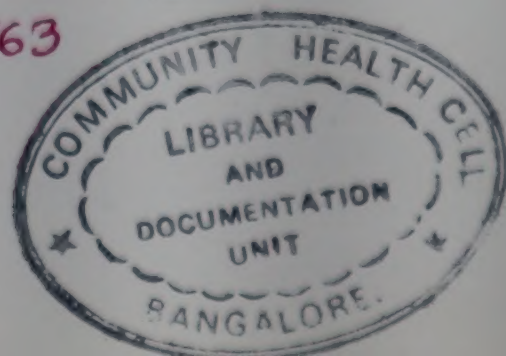




The Honorable Begum Khaleda Zia, Prime Minister of Bangladesh, addressing the Partnership to End Hidden Hunger Conference on April 11th 1995.

On the second day of the conference, the Honorable Begum Khalida Zia, Prime Minister of Bangladesh, came and addressed the participants of the Partnership to End Hidden Hunger Conference. Her attendance demonstrated Bangladesh's commitment to the elimination of Iodine Deficiency Disorders. It was indeed a great honor for the conference participants and the sponsoring organizations to have an opportunity to be with the Prime Minister.

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# The Prime Minister of Bangladesh Commits to IDD Elimination

*"We are committed to the elimination of iodine deficiency disorders by the year 2000. To achieve that goal, we have taken all possible measures. The Iodine Deficiency Prevention Act has been strengthened. At the same time, import of non-iodized salt in the country has been banned. Iodization machines have been installed free of cost in all salt mills. We hope, by the end of the year, we will be able to ensure supply of iodized salt for all. I want to assure you that your recommendations will receive our close attention and we will do whatever necessary to eliminate the scourge of iodine deficiency disorders.*

*I wish the conference all success.*

*Thank you all".*

- Excerpt from a speech made by the Honorable Begum Khaleda Zia, Prime Minister of Bangladesh, at the Partnership to End Hidden Hunger Conference on April 11th 1995.





# List of Abbreviations

CIDA	::	Canadian International Development Agency
ICCIDD	::	International Council for Control of Iodine Deficiency Disorders
IDD	::	Iodine Deficiency Disorders
IU	::	International Units
MI	::	Micronutrient Initiative
PAMM	::	Programme Against Micronutrient Malnutrition
SIP	::	Salt Iodization Programme
TSH	::	Thyroid Stimulating Hormone
UNICEF	::	United Nations Children's Fund
USI	::	Universal Salt Iodization
WHO	::	World Health Organization

The International Council for the Control of Iodine Deficiency Disorders (ICCIDD) is a non-profit non-governmental organisation dedicated to the sustainable elimination of iodine deficiency disorders (IDD) throughout the world. The ICCIDD was granted an official status as an International NGO at the 47th World Health Assembly held in Geneva in 1994. Its activities are supported by donations/grants from the Australian International Development Assistance Bureau (AIDAB), the Canadian International Development Agency (CIDA), the Micronutrient Initiative (MI), the Netherlands Ministry for Development Cooperation, the Swedish International Development Agency (SIDA), the United Nations Children's Fund (UNICEF), the United States Agency for International Development (USAID), the World Bank, the World Health Organisation (WHO), and others.





# Foreword

A politician in the United States, Mr. Adlai Stevenson, once said "The trouble with the present generation is that they have not read the minutes of the last meeting!" While, of course, he was speaking of the understanding of U.S. political history by its citizens, the quotation is apt concerning the issue of sustainable elimination of Iodine Deficiency Disorders. Moreover, the quotation is apt when considering the history of work on iodine deficiency in South Asia.

This was a principal motivating factor behind the idea of an inter-country meeting of "stakeholders" in 1995 in Dhaka. History teaches us that sustained elimination of IDD requires constant vigilance of a range of professional and public interests. It is particularly important to understand this as we approach the goal of universal iodation of edible salt by the end of 1995. Too many of us may diminish our efforts when we reach the first plateau. The long climb to eliminate the stealthy scourge of IDD from the globe begins with achievement of universal iodation of salt.

To achieve universal iodation of salt for all human and animal consumption is a remarkable goal. In fact, it may be that more people are involved in reaching that effort than were involved in building the Panama Canal! But, universal salt iodation is not the end of our work.

We must now sustain the achievement. To do so involves a complex network of activities of quality assurance. Nations must assure that the iodation of salt is properly done, for as long as we can foresee the future. In addition, the packaging and marketing of the product must be of high quality to gain and sustain public confidence. Quality assurance of modern management in the national effort is required and this will take a good bit of effort by all concerned since it involves management issues in nutrition, in health, in education, in agriculture, in salt manufacture, in raw material provision, in human resource development, in public education, and in sustained consumer demand.

In addition, we shall need the necessary modern laboratory techniques and personnel in both public and private endeavours to assure sustained progress in human growth and development. This will involve sectors of health and agriculture, production and promotion, and education and public awareness. It requires constant vigilance from neonatal screening to community surveys, to demonstrate and to prove the effective results of a balanced intake of iodine.

More is required; some clues in the discussion of the "stakeholders" in the Partnership to End Hidden Hunger reveal imaginative prospects. We shall need to assure that education on the value of iodine to human and animal growth becomes part of primary education learning systems. We shall need to assure that secondary, university, and medical training and learning centres are permanently aware of the value of iodine to society and the danger of its absence in the soil and its benefit in fortified foods, like iodized salt. We shall need to assure that training of personnel is a constant in the national endeavor to eliminate IDD from the globe.

History teaches us that when we relax our vigil on the dangers of iodine deficiency, the age old scourge stealthily begins again to undermine our mental and physical growth and our nations' development. The stakeholders invited to the conference in Dhaka will assure that their considerable talents and resources are increasingly dedicated to the sustained elimination of IDD.

For more than seventy years, scientists have told us that IDD is the nutrition problem most easily eliminated...if we want to do it! The task is formidable, but we are well prepared: we know what to do; we know how to do it; we know that it works; we know what it costs. If we do not eliminate this global problem, which one shall it be? Put another way, "If not us, who? If not now, when? If not here, where?"

**Hema Viswanathan**  
Board Member, ICCIDD

**David P. Haxton**  
Senior Advisor, ICCIDD

**Chandrakant S. Pandav**  
Regional Co-ordinator (South  
Asia & Pacific), ICCIDD

October 7th, 1995







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# EXECUTIVE SUMMARY

In response to the need for accelerating progress towards eliminating iodine deficiency disorders (IDD) as a public health problem in the South Asian region, a conference between all those different people concerned with the sustainable elimination of IDD, "the stakeholders", was held in Dhaka, Bangladesh from April 9th to 12th, 1995. A multisectoral group of over 80 participants from Bangladesh, Bhutan, India, Nepal, Pakistan, Sri Lanka, and 16 other nations represented the interests of government, IDD experts, NGOs, salt industries, economists, salt regulators, policy makers, communicators, educators, and health care providers in achieving the following conference objectives:

1. To renew commitment to the World Summit goal of IDD elimination by the year 2000.
2. To forge alliances between all stakeholders involved in IDD elimination.
3. To facilitate the development of inter-sectoral strategies for sustaining elimination of IDD and foster combined synergistic efforts towards this end.

Salt iodization has proven to be the cheapest and most effective method of eliminating IDD in South Asia, where over 50% of the world's population is at risk of stillbirths, stunted growth, neurological debilities, goitre, lower IQ scores, decreased energy metabolism, and many other manifestations of dietary iodine deficiency. Despite the sense of a technical solution, the implementation of salt iodization has been slow, difficult and frustrating. Once IDD is eliminated, however, there is the further challenge of sustaining its' elimination. It was with this goal in mind that CIDA, ICCIDD, MI, UNICEF, WHO, and the Government of Bangladesh organized this first-ever conference with a focus on sustaining elimination of IDD.

Guided by an innovative "Future Search" conference methodology, participants worked in small groups on a series of five creative and intensive tasks over three days:

- 1) A review and analysis of the past of IDD elimination
- 2) The construction of a composite picture of everything that is happening in the present, that is external, and that will have a impact on the future regarding IDD
- 3) The development of one or more future scenarios for the elimination of IDD five to twenty years into the future.
- 4) The discovery of common ground amongst the scenarios
- 5) The construction of action plans for both the short and long term for sustaining the elimination of IDD



Outcomes of the conference stressed the importance of transposing IDD from a medical problem into a socioeconomic issue by soliciting the help of different concerned, but "new", groups. Compliance with production of adequately iodized and packaged salt, an efficient and distribution and market system for only iodized salt for human and animal consumption, education of communities on the consequences of IDD and the benefits of iodized salt through various media (including schools, mass media, and rural IEC activities), private sector and government collaborations on food fortification, and periodic salt-iodine monitoring and IDD health surveys are some of the ways of helping ensure a sustained effort to eliminate IDD throughout the region. The process emphasized dialogue between the various stakeholders and cumulated with each Asian country delegation drawing on these multidisciplinary insights to develop specific strategies within and outside their country.

In an unprecedented address to the conference, the Prime Minister of Bangladesh, the Honorable Begum Khaleda Zia, demonstrated her country's commitment to eliminating IDD and also provided inspiration for other countries to sustain IDD elimination.

With the discovery of new strategies through "future searching" and alliance-building between all IDD stakeholders, the Partnership to End Hidden Hunger conference aims to build and maintain a network of collaborators in the South Asian region working towards the sustainable elimination of IDD by 2000.



*"Micronutrient deficiency does not produce hunger as we know it. It gnaws at the core of health, but not below the belly. Most of its consequences are not readily perceived; like the iceberg, its ' bulk lies beneath the surface. Even its most apparent efforts - such as blindness and cretinism - seem to most people to be unrelated to diet. That is why we call it "hidden hunger" and why such an extraordinary effort must be made - through every available channel - to drag it into the open, make it visible as an issue at the political level, and empower families with the prevention knowledge they need."*

- James P. Grant, Executive Director, UNICEF, 1995

From : Ending Hidden Hunger (A Policy Conference on Micronutrient Malnutrition)  
Montreal, Canada  
October 1991



# INTRODUCTION

Iodine deficiency is the world's single most significant cause of preventable brain damage and mental retardation. The clinical and subclinical manifestations of iodine deficiency are collectively included in the term Iodine Deficiency Disorders (IDD) and affect all stages of human growth and development, from fetus to adult (table 1). It is estimated that 1,570 million people (29% of the world's population) are at risk of IDD. Globally, the prevalence of goitre is estimated to be 12% (655 million). Over 26 million suffer from brain damage and 5.7 million are cretins. On average, children living in iodine deficient areas have been shown to score about 13 IQ points lower than those children living in iodine sufficient areas. A case study of the effects of an iodized salt programme on the overall "health" of a Chinese village is exemplified in table 2.

IDD as a public health problem has been reported from 110 countries. In absolute terms, Southeast Asia (which includes India, Bangladesh, Indonesia) and the Western Pacific (which includes China) together account for more than 50% of the world's population at risk of IDD. Moreover, iodine deficiency continues to be a concern in most countries in Europe (even Western Europe, including 10 million people at-risk in Germany). Thus, IDD is indeed a major public health problem in the world.

To prevent IDD, the body requires an infinitesimal quantity of iodine each day - just 150 micrograms per day, totalling only a teaspoonful in a lifetime! This minute quantity, however, needs to be consumed steadily and consistently over a lifetime.

Many decades of work by medical experts and by experts in food fortification led to a major breakthrough in which iodine was successfully added to salt and iodized salt became a very good vehicle for replenishing each person's daily diet with that minute quantity of iodine that makes all the difference to human growth and development.

Table 1. The Spectrum of Iodine Deficiency Disorders

STAGE IN LIFE	HEALTH EFFECTS
Fetus	Abortions Stillbirths Congenital Anomalies Increased Perinatal Mortality Increased Infant Mortality Neurological Cretinism: <ul style="list-style-type: none"><li>- mental deficiency</li><li>- deaf-mutism</li><li>- spastic diplegia</li><li>- squint</li></ul> Myxedematous cretinism: <ul style="list-style-type: none"><li>- mental deficiency</li><li>- dwarfism</li></ul> Psychomotor defects
Neonate	Neonatal goitre Neonatal hypothyroidism
Child and Adolescent	Goitre Juvenile hypothyroidism Impaired mental function Retarded physical development
Adult	Goitre with its complications Hypothyroidism



Table 2. Effects of IDD Control Programme in Jixian Village, China

	Before Programme (1978)	After Programme (1986)
Goitre prevalence	80%	4.5%
Cretinism prevalence	11%	None
School ranking (of 14 schools in the district)	14th	3rd
School failure rate	> 50%	1%
Value of farm production (Yuan)	19,000	180,000
Per capita Income (Yuan)	43	550



Table 3. Status of IDD elimination activities in South Asian countries

COUNTRY	IDD PREVALENCE IN ENDEMIC AREAS	SURVEY YEAR	CURRENT STATUS OF IDD ELIMINATION PROGRAMME
Bangladesh	> 40%	1993	SIP, Iodized oil injection
Bhutan	18-49%	1991, 1992	SIP
India	> 10%	1956-92	SIP
Maldives	> 20%	1995	SIP to be introduced
Nepal	> 10%	1986, 1992	SIP, Iodized oil injection
Pakistan	> 30%	1993, 1994	SIP
Sri Lanka	> 18%	1986, 1987	SIP

\*Note: survey of school aged children



*"Endemic goitre is the easiest known disease to prevent - it may be excluded from the list of human diseases as soon as society is determined to make the effort."*

- David Marine, 1915

The cost of salt iodization is approximately 5 US cents per person per year - less than the price of a cup of tea. Using the most conservative estimates, the cost benefit ratio of IDD elimination programmes is 1:3. If benefits related to education and livestock populations are included, the ratio would be 1:8.

On the occasion of the World Summit for Children at the United Nations in New York, attended by 71 Heads of States and 159 Governments, one of the specific goals adopted by the governments was the virtual elimination of IDD by the year 2000. To achieve that goal, it was subsequently agreed that all countries would iodize at least 95% of salt supplies for each country by the end of 1995.

There has been significant progress towards the mid-decade goal of universal access to iodized salt by the end of 1995. Information is now available on 94 countries with IDD problems. A total of 58 countries have achieved the goal of iodization of 95% of salt supplies. Another 32 countries could achieve the 1995 goal with an accelerated effort. The remaining four countries are unlikely to achieve it at the present rate of progress. After taking such a toll on the mental and physical health of so many for so long, the problem of IDD is now being forced to give ground. There is confidence that by 2000, the elimination of IDD will be achieved. Table 3 gives a brief look at the current status of IDD elimination activities in Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka. A summary of each country's progress can be found in Appendix A.

The solution to eliminating IDD has been found in iodized salt which can ensure a sustained and continued remedy. In the final analysis, success will lie not only in reaching the goal, but also in sustaining the elimination of IDD forever. This will require:

- ☞ that IDD is never forgotten, otherwise it will re-surface
- ☞ that a combined strategy for sustaining the elimination of IDD is subscribed to by all those concerned to ensure smooth operationalization.



This is the rationale that prompted the establishment of a "partnership" to end the hidden hunger of iodine deficiency. It is now time to intensify and diversify efforts to eliminate IDD as a public health problem by the end of the decade. To ensure the sustainability of current national IDD elimination programmes, issues of quality control, legislation, enforcement, management and evaluation are becoming critical elements in reaching the goals by the year 2000. To address these issues effectively, alliances have to be forged with and strengthened between the "stakeholders" - those groups that have a special interest in seeing IDD eliminated.

All stakeholders need opportunities to come together to collaborate on and coordinate activities such that their combined efforts lead to sustained success. There is also the need to expand the circle to include newer sectors and different disciplines with whom a fresh approach and different insights can together help realize the goal of a world free of IDD.

In order to successfully eliminate iodine deficiency disorders, it has become evident that a collaborative campaign must be mounted in each country in the region. It was with this objective in mind that the Canadian International Development Agency (CIDA), the International Council for Control of Iodine Deficiency Disorders (ICCIDD), the Micronutrient Initiative (MI), the United Nation's Children's Fund (UNICEF), and the World Health Organization (WHO), in cooperation with the Government of Bangladesh, organized a conference in Dhaka, Bangladesh from April 9th to 12th of 1995.

The stated objectives of the Partnership to End Hidden Hunger conference were to:

1. *Renew commitment to the World Summit goal of IDD elimination by 2000.*
2. *Forge alliances between all stakeholders involved in IDD elimination.*
3. *Facilitate the development of intersectoral strategies for sustaining elimination of IDD and foster combined synergistic efforts towards this end.*

*"As we enter a new phase of technology application in respect to micronutrient malnutrition, an understanding of the reasons for our failure to utilize optimally some of the commonplace contributions of science and technology would be useful."*

**- V. Ramalingaswami,  
Ending Hidden Hunger,  
1991.**



*"The best way to predict the future is to invent it."*

- Alan Kay

## PRE-CONFERENCE PLANNING: THE PEOPLE

In 1985, it was recognized that a more comprehensive group of allies was needed to carry the issue of IDD from a medical problem into a national priority. An interface between science and society was required and so the need to define and bring all the stakeholders together.

**Industry and government** need to collaborate on questions related to trade, commerce, food fortification, and legislation. **Parliamentarians and administrators** must be fully apprised of the problem and the solution so that when they are called upon to make a decision, it will be the appropriate one.

An ICCIDD team, consisting of Rolf Carriere, David P. Haxton, Chandrakant S. Pandav, Hema Vishwanathan, Nilima Chawla, and Venkatesh Mannar, worked to build the idea of holding a Future Search Conference. Dr. Pandav, Regional Coordinator of ICCIDD for South-Asia, coordinated this endeavor with the conference managers, Dr. Katharine Esty and Dr. Gilbert Steil of Ibis Consulting Group based in Cambridge, U.S.A. and Mr. Anish Barua of Communica, a Bangladeshi consulting firm, who provided facilitatory and administrative support. Among major planning goals for the conference, it was important to determine: Who are the right stakeholder groups to invite? How to ensure that the most appropriate participants attend? What kind of pre-conference orientation would be most useful? How will follow through after the conference be assured? What are the major issues to address?

**IDD Experts** come from a variety of disciplines and serve to accelerate the process of IDD elimination through technical support, advocacy and monitoring.

Nine stakeholder groups were identified for this conference:

- \* **Governments**
- \* **IDD Experts**
- \* **Salt Industry**
- \* **Salt Regulators**
- \* **Policy Makers**
- \* **Communicators**
- \* **Educators**
- \* **Health Care Providers**
- \* **Non-Governmental Organizations (NGOs)**

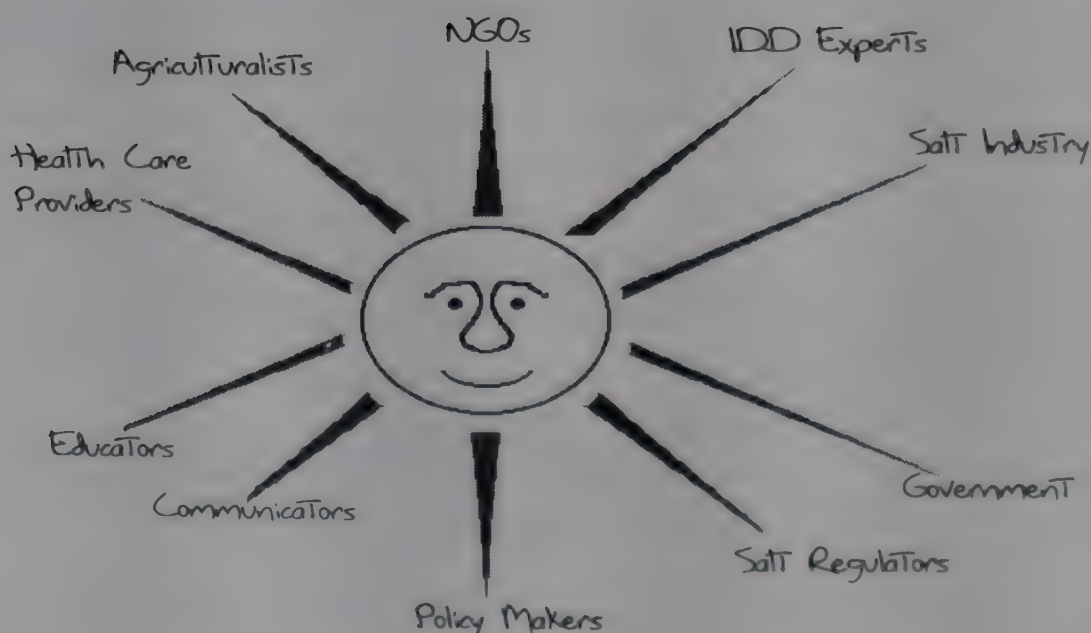


In each country, a coordinator was selected who took responsibility for enrolling conference participants from a variety of disciplines. A list of all the participants can be found in Appendix B. Dr. Pandav sent out background papers on IDD and the Future Search methodology. The basic premises of a Future Search conference is that delegates participate in the exploration of the environment in which the system exists.

**Salt manufacturers** must be persuaded of the importance of their role and must want to iodize salt both as a sound business decision and a socially responsible contribution. The **food processing industry** must also be encouraged to fortify common foods with iodine, Vitamin A and iron.

In conjunction with the Future Search Conference, several other IDD Events were planned and took place in Dhaka. These included: the International Symposium on "Iodine, Nutrition, and Human Development" organized and sponsored by the ICCIDD, the Institute of Post Graduate Research, Dhaka, the University of Dhaka, Beximco Pharmaceuticals Ltd., and the Bangladesh Salt Mill Owners Association, the First National Conference of Iodized Salt Producers of Bangladesh, the 10th Anniversary of the ICCIDD Celebration, the ICCIDD Annual Executive and Board Meeting, and an International Exhibition on IDD. A timetable of all these events can be found in Appendix C.

Those involved in the packing, transport, distribution, and sale of salt - **the salt regulators** - must also know of the importance of their role and must want to take that extra care that can make all the difference.



IDD Elimination by 2000



# PRE-DHAKA ORIENTATION MEETING

**Legislators and policy makers** can directly affect policy and law and so they must be constantly kept aware of the entirely avoidable costs of IDD. Enforcement is a key issue. *"Good quality iodized salt is good politics and good civil service".*

In each country, delegates had the opportunity to meet before the conference to get acquainted with each other, the Future Search methodology, the problem of IDD, and the elimination programme in their country.

Organized by the relevant UNICEF country office, the orientation meeting included:

- i) viewing of the films "The Stealthy Scourge" and a country specific film on IDD,
- ii) a field visit to either a salt iodization plant or an area known to be IDD endemic,
- iii) reading materials on country specific information on IDD and selected chapters from "S.O.S. for a Billion: The Conquest of Iodine Deficiency Disorders" (edited by B.S. Hetzel and C.S. Pandav and published by Oxford University Press, Delhi, 1994),
- iv) information on the meeting's methodology from the booklet "What is a Search Conference?" (by Marvin Weisbord and published by Jossey-Bass, San Francisco, 1987), and
- v) presentations and lectures on IDD.

**Consumer groups** can pressure salt producers and retailers into providing high quality iodized salt. Creating awareness also requires **professional communicators** and the help of those in advertising, journalism, and the **mass media**.

The most significant aspect of this pre-meeting process was that participants from different walks of life were able to begin to experience a wider sense of a community working towards sustaining the elimination of IDD in their own country. Politicians met scientists, salt regulators met health care providers, communicators met educators, and the list goes on.



# FUTURE SEARCH CONFERENCE METHODOLOGY

The Future Search methodology is a form of strategic, long term planning that involves the participation of a whole organizational system or community, such as all those that have a role in seeing IDD eliminated in the South Asian region. Assembled in one place at one time, key representatives of various groups come together to design a preferred future and to discover common ground. The process is one that seeks to honor diversity and deal with complexity and ambiguity. Everybody works as peers, confronting the past, the present, and the future in dialogue with each other. Participants explore the whole system, its history, ideals, constraints, opportunities, and trends within and outside the system. Freed from the pressure to solve intractable problems, the methodology seeks to establish common ground that none knew existed. The most radical aspect of this type of conference is the treatment of conflict. Group dynamics are structured so as to encourage participants to find common ground and thus plan for a shared future, while still dealing directly and intensely with the issues. Other types of conferences usually involve speeches, presentations, and formal papers - not this one!

The Future Search Conference was designed around four basic principles:

- getting the **Whole** system under one roof
- developing desired future scenarios, rather than problem solving
- working together on a series of structural tasks
- working as peers and equals in small, self-managed groups

The conference involved more than 80 participants who came together for 3 days with the goal of developing a consensus on the desired future for eliminating IDD in South Asia. Although facilitated by three consultants to the system, the work of the conference was self-managed by the participants. Five tasks were com-

People who work in **education** are more likely than others to encounter the results of iodine deficiency, but may not always be equipped to recognize or deal with children having learning difficulties or high school drop out rates. Their greater appreciation of the problem can make them move vocal and credible advocates in this cause as well as powerful disseminators of IDD information to children and their families.

*"A ship is steered by feedback from the outside, not by how the rudder, engines, or crew are behaving."*

**- Kurt Lewin**

Those who work with the **mentally disabled children** and in the field of disability prevention and rehabilitation can be the most powerful and credible advocates in this cause. **Nutrition planning and training** will have to take IDD elimination into account and ensure that once eliminated, IDD is not allowed to reappear.



**NGOs, social service clubs, and social welfare groups** are very powerful allies since they can keep public and government attention focussed on eliminating IDD.

pleted by the participants working in small groups of about 8 people each. Each group represented a mix of stakeholders and countries at various times. Each of the five tasks took about 3 hours and are as follows:

- 1** A review and analysis of the past of IDD elimination
- 2** The construction of a composite picture of everything that is happening in the present, that is external and that will have a impact on the future regarding IDD
- 3** The development of one or more future scenarios for the elimination of IDD five to twenty years into the future.
- 4** The discovery of common ground amongst the scenarios
- 5** The construction of action plans for both the short and long term for sustaining the elimination of IDD

The yield of eggs, milk, wool, and meat has been shown to improve dramatically in livestock who receive sufficient iodine in their diet. An additional stakeholder group will soon include those involved in **animal husbandry and agriculture** as they must also recognize that livestock need iodine supplementation and so must demand iodized salt.



# THE PAST:

## CREATING A COMMON DATABASE

1

After introductions and a preliminary overview of the conference, participants were given the task of developing a shared database of critical issues and events that had shaped the past and form the backdrop for the present stage of IDD in South Asia. This was done by asking participants to list key events on three large "timelines" which had been posted on the walls of the meeting room. The first timeline focused on global society or world wide events, the second line centre on the efforts to eliminate IDD, and the third line was for the personal history of the participants.

The next step was to analyze the data on the timelines. Participants were asked to identify patterns and connections between the three timelines to see the relationship between global events, the effort to eliminate IDD, and the participants' own lives.

Derived from the exercise was the insight that the effort to eliminate IDD has evolved from a local problem into an international issue. Recently, elimination efforts have gained support from the growing recognition of human rights and the rights of children, the creation of national policies on salt iodization, and increased recognition of IDD as a serious and widespread problem.

IDD was also perceived to have evolved from a medical problem into a political problem. Although a technical solution to IDD has been known for more than eighty years, the elimination of IDD has been far slower than anticipated partly because it is not a political priority and partly because it is essentially a problem of the poor. There is cautious optimism about the possibility of eliminating IDD given continued scientific advances in evaluation and intervention measures and the potential for mass communication.

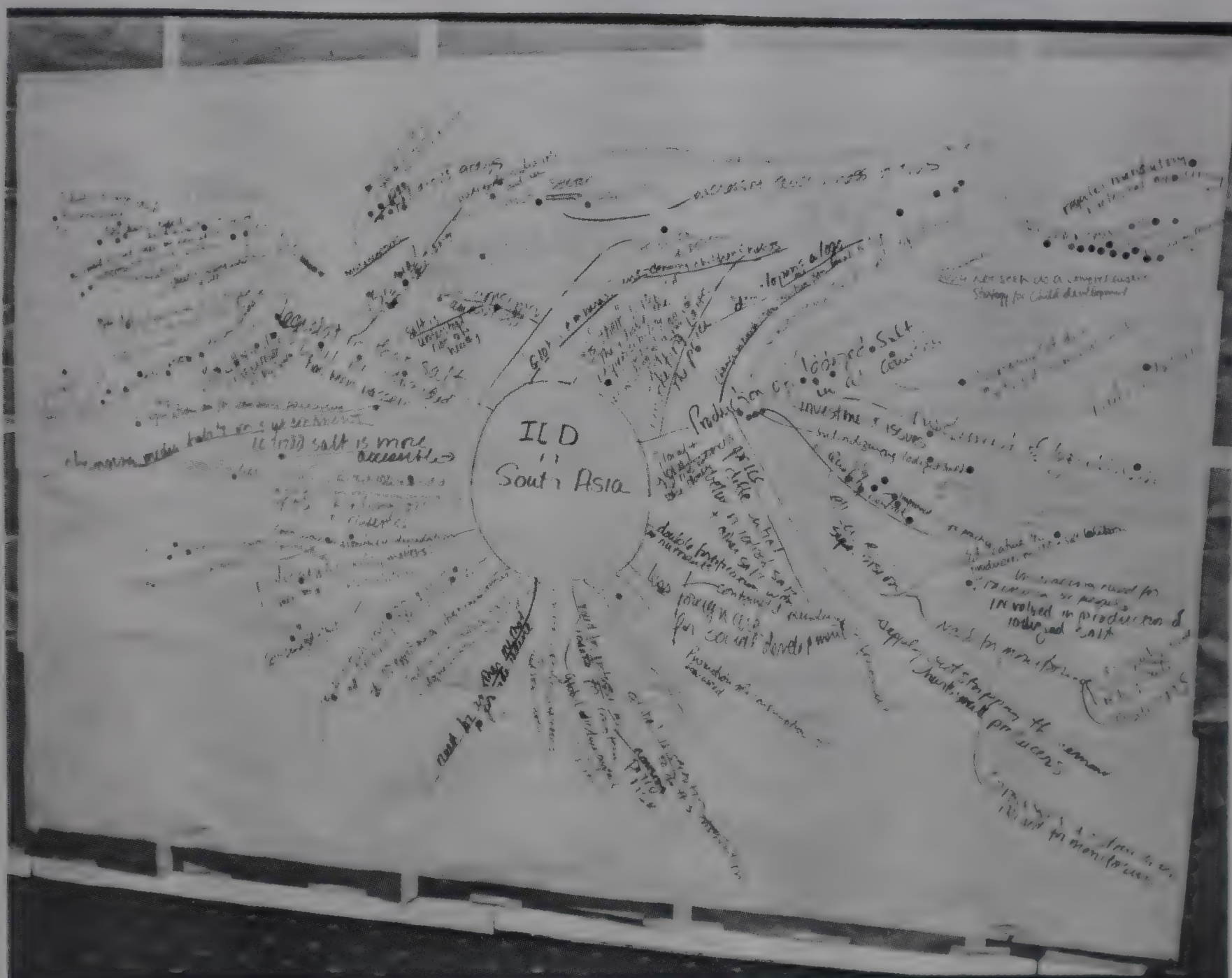
**The first task** establishes our history, differences, similarities, and shared values.

*"Iodine deficiency is so easy to prevent that it is a crime to let a single child be born mentally handicapped for that reason."*

**- H. Labouisse,  
Executive Director,  
UNICEF, 1978**



Commitment to IDD elimination was found to have increased over the years with the awareness of the relationship between iodine deficiency and brain development. Opposition to iodization from some groups and individuals, however, has also increased; their fears and misunderstandings are communicated by word of mouth and through the media. These have been periodically responded to by the government, however, communication efforts need to be "proactive" rather than "reactive".





# THE PRESENT:

## MINDMAP, PROUDS AND "SORRIES", AND AN ASSESSMENT

2

### i) Mindmap

The next task was to develop a shared understanding of the present environment in which the campaign to eliminate IDD exists. As participants brainstormed together on the question "What are the most important forces and trends that have an impact on efforts to eliminate IDD?", the conference managers drew a "mindmap" on the wall. A mindmap is a diagrammatic listing of all influential trends and forces with suggestions of some key relationships between these trends. The resulting mindmap demonstrates graphically the complexity of the problem and the interrelationships of issues to a far greater extent than would a conventional outline. Participants were then asked to mark those trends which seemed most critical to them and which deserved significant attention in the future.

In the **second task**, we pool our perceptions of world trends into a picture more complete than any one person had before. With other stakeholders, we draw implications for the future. Everybody hears all other perspectives.

### ii) "Prouds" and "Sorries"

Meeting as country groups, participants were asked to list those efforts and achievements in eliminating IDD in their country about which they felt happiest (the "prouds"). Things that had been done (or not done) in their country which they regretted were also listed (the "sorries")

For example, the **Bangladesh** participants were proud of the ordinance on universal salt iodization, the low-cost testing kits available for home and factory, and that salt iodizing machinery is produced locally and has been supplied to all 265 salt producers. They "felt sorry" about the lack of monitoring of salt iodization, the lack of awareness about IDD, the lack of buffer stock, and the faulty import policy regarding salt.



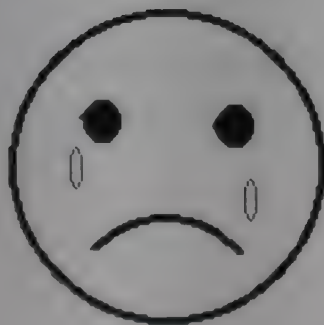
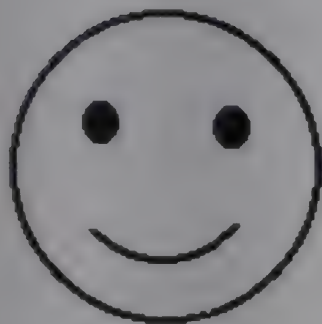
Participants from **Bhutan** were proud of the dramatic reduction in the prevalence of goitre and cretinism in their country, the effective regulatory measures that have been enacted, and the fact that iodized salt is available even in the most remote areas. They "felt sorry" about their late start in instituting a program to eliminate IDD.

The **Indian** delegation was proud of the government's commitment to eliminate IDD, their technical expertise, and the database on IDD which exists in India. They "felt sorry" that global methods for monitoring salt iodization have not yet been adopted, that salt is not packaged in small packets, and that some professional antagonisms exist among those working on the issue of IDD.

Participants from **Nepal** were proud of the political commitment at the highest level to eliminate IDD, their special IDD programs, data they have collected on IDD, and the fact that they have a single salt supplier. They "felt sorry" that the delivery of salt is hampered by the landscape of Nepal, that salt is not indigenously produced, that the country is landlocked, and that salt iodization legislation in Nepal is inadequate.

Participants from **Pakistan** were proud of their success in transforming the salt industry through private investments, the high level of political commitment in Pakistan, and their innovative ways of engaging private and public sector cooperation. They "felt sorry" about the failure to respond quickly to misinformation about iodized salt that has been communicated, the lack of federal legislation, and that supply and demand are not well coordinated.

The **Sri Lankan** group was proud of recent salt iodization legislation which took effect in January 1995, their technical expertise in salt iodization, and their ongoing national education programs on IDD. They "felt sorry" that social marketing efforts had not reached many of the target groups, that there were inadequate buffer stocks of common salt for iodization, and that in many cases, salt manufacturers still do not comply with legislation.





CIDA was proud of their growing budget and "sorry" that CIDA staff see nutrition as welfare. WHO was proud of their increased productivity and their role in facilitating national plans of action; they were "sorry" to see their budgets decreasing. The group from UNICEF was proud of the mid-decade goal of Universal Salt Iodization and that their involvement in IDD has not been marginalized. They regretted the misdirected emphasis on iodized oil capsules. Kiwanis was proud of their decision to adopt the IDD project and "felt sorry" about the time it has taken to get proper management underway. The participants for Myanmar were proud of the involvement of private salt plants in iodization, the formation of multisectoral coordination in a target division, and the fact that health staff have been trained about IDD in 10 out of 14 divisions (states); they "felt sorry" that legislators have not been enlisted.

### iii) Assessing Present and Desired Activities

The third step in the exploration of the present situation was for each stakeholder group to identify what they were presently doing to eliminate IDD and what they wished they were doing. To illustrate the point, notes from some of the stakeholder groups follow.

#### NGOs

Presently, some NGOs are involved in activities such as sponsoring discussions, pushing for legislature, promoting awareness, promoting quality control, and distributing packets of iodized salt. This is not typical of all NGOs, however, and efforts are inadequate. Participants from the NGOs wished that there was agreement among them about the most important course of action to adopt. Fundamentally, they expressed the need to come to an agreement that they can do something about eliminating IDD.

#### Salt Industry

Although manufacturing practices (such as testing, record keeping, and storage) currently exist in many cases, this group of participants reported that they would like to see far more quality control and improvement in

*"Science tells us what can be done.... Ethic is normative. It deals with what 'should' or 'ought' to be done. Most of the nutritional goals for the 1990's are normative or ethical positions or statements. The goal of 'virtual elimination of IDD before the year 2000' is a normative statement about what we think we should achieve. Ethics cannot be discussed with logic. Ethical consensus is arrived at through dialogue, reflection, enquiry and struggle."*

**- Urban Jonsson,  
Regional Director,  
UNICEF South Asia**



raw salt production techniques. They would like a better buffer stock of common salt to ensure supply, more cost efficient technology and more technology transfer.

### **Government**

In some or all of the participant countries, government officials are currently using the media to inform people about IDD, conducting workshops, advocating the elimination of IDD, distributing testing kits, using a logo for iodized salt, and enacting legislation. They would like to involve more religious leaders, social workers, and NGOs. They want iodized salt to be compulsory for both animal and human consumption. They would like to see iodized salt packaged in small bags and financial and technological help provided to all salt producers. They expressed a desire to assist with the development of effective monitoring systems.

### **Policy Makers**

This stakeholder group would like to see all six governments make a commitment to sustaining the elimination of IDD. They want budgets provided and resources allocated so that progress can be monitored. They would like to see national policies on nutrition, enforcement of existing laws, and a regional policy regarding the export and import of salt across national borders.

### **Educators**

Educators reported that they want to see awareness of IDD built into the curricula of schools at all levels, including activity-based use of iodized salt testing kits. They also believe that there is a need to educate and gain the commitment and cooperation of planners, producers, traders, consumers, and other groups.



# THE FUTURE:

## CREATING SCENARIOS

# 3

At this point, participants were given the task of coming to a consensus within their groups on the best pathway from the present situation to the goal of having sustained the elimination of IDD in the year 2010. After agreeing on the best path, they enacted for the entire conference their group vision of what the future will be like once IDD is eliminated and how the elimination of IDD will be achieved. Costumes, music, a bit of acting talent, and a lot of participant energy and enthusiasm made the eight scenarios thought provoking, spirited, and sometimes hilarious.

Visualizing the future and the steps towards it is one of the best ways of gaining confidence in one's abilities - much like how an athlete prepares for the Olympics by training her body and mind towards winning.

In the **third task**, the small groups devise ideal future scenarios. By presenting our dreams as if they have already happened, we ground ourselves in what we really want and what we are willing to work on.

*"The elimination of IDD will be a great triumph in the field of public health, comparable to the eradication of smallpox."*

- Basil S. Hetzel,  
ICCIDD





# 4

## COMMON GROUND AND PROMISING IDEAS

In the fourth task, the discovering of common ground amongst the scenarios is explored. All groups identify the aspects of the scenarios that appear in many, if not most, of the scenarios. If we cannot agree upon an aspect, it is not included in the consensus and the action planning that follows.

The next task was to determine what ideas were common to most or all of the stakeholder groups. Each group came up with a list of elements that had appeared in several of the scenarios on which they agreed and for which they would be willing to work. First two groups, then four groups, and then finally the entire conference came together and gradually developed a list of elements upon which everyone agreed. This list became "Common Ground". Other ideas that not everyone in the room could support were placed on the "Promising Ideas" list.

*"With the ever-growing development of national control programmes, supported by regional working groups and the remarkable global collaborative network of the ICCIDD, the essential infrastructure for global elimination is already in place. Now required are the resources to reinforce the national programmes which will drive this global support system. If these resources are forthcoming, I am certain we shall see the virtual elimination of iodine deficiency disorders by the year 2000".*

- Hiroshi Nakajima,  
Director-General,  
WHO



## Common Ground

- Develop curricula about IDD for schools, including the use of test kits.
- Educate teachers to educate children on IDD
- Improve quality control and management practices.
- Issue guidelines for proper storage of salt at the household level.
- Ensure that clean, iodized, packaged salt becomes the norm.
- Make test kits available and be sure testing is continued.
- Iodize all salt including that for animal consumption.
- Demand quality iodized salt at production, retail, and consumer level.
- Establish standards for salt and communicate them to peer groups, families, schools, and health sectors.
- Integrate IDD monitoring into other social monitoring programmes.
- Create an alliance between the private sector, governments, and NGOs to work on this issue.
- License a logo to be used for the quality control of iodized salt.
- Develop a multisectoral approach to eliminating IDD.
- Obtain commitment to eliminating IDD at the highest political level exerting pressure.
- Enforce more existing laws about iodizing salt.
- Enact and strictly enforce needed legislation.
- Establish global cooperation and international solidarity on IDD elimination and develop shared objectives.

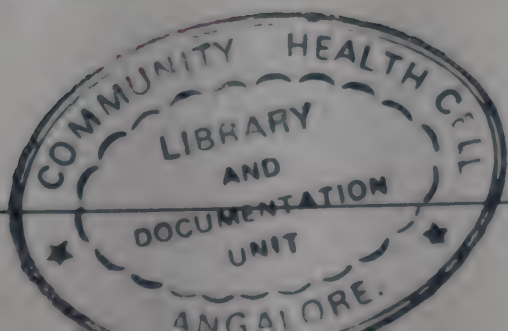


## Promising Ideas

- Utilize hand-held ultrasound for diagnosing goitre.
- Consider whether ICCIDD is redundant.
- Institute an IDD week or day.
- Fortify salt with iron.
- Communicate success stories about the "elimination of hidden hunger".
- Acquire free time of TV and radio for coverage of IDD.
- Use modern technology to communicate about IDD, i.e. the Internet.
- Enlist popular personalities as IDD ambassadors.
- Ensure that messages about iodization are specific and brief.
- Involve religious leaders to promote iodized salt.
- Hold press conferences to sustain awareness.
- Be certain that each slogan has only one message.
- Clarify the message about why iodization is necessary.
- Advocate IDD elimination referring to the UN's "Rights for Children."
- Use folk songs, puppet shows, theater, etc., for the promotion of iodized salt.
- Develop appropriate safety messages on the use of iodized salt.
- Develop ways to provide assistance to small scale producers.
- Improve technology for storage of iodized salt.
- Share information about progress broadly.
- Disseminate sub-district data on IDD control.
- Create a stable price for iodized salt.
- Develop efficient and cost-effective distribution systems for salt.
- Improve the salt distribution/transport system.
- Work for acceptance of quality control concept by all salt producers.
- Assist with the transfer of technology among salt industries.
- Monitor a sample of school children for IDD (for every five years) using a clinical biochemical monitoring system.
- Develop policies to set the price of salt.
- Continuously monitor all government, school and households.
- Empower international body to monitor standards.
- Include IDD as part of a large nutrition and social contract.

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# ACTION PLANNING

# 5

The third day of the conference was devoted to action planning. Participants worked in three configurations. First, they worked in stakeholder groups brainstorming possible collaboration across country boundaries. The next step was to work in their organization delegations and to begin the process of formulating specific strategies for their country organizations. Finally, a representative from each group discussed what needs to be done on a regional basis and how that can happen.

The plans that emerged must be seen as the first step of the action process. The notes from the various country and agency delegations are stated in this report but it is important to be aware that these are only preliminary plans. **What is most critical is what happens after the conference.**

## Bangladesh

The delegation from Bangladesh recommended that their country:

- i) Take a multisectoral approach to awareness building and monitoring of iodized salt.
- ii) Strictly enforce laws regarding production and marketing of iodized salt.
- iii) Increase the quality control of marketed salt.
- iv) Use both traditional and non-traditional methods to communicate the IDD message.
- v) Include materials on IDD and its causes in school curricula.

They suggested that their focus for the next six months be on:

- ☐ Assuring that all the salt factories produce iodize salt.
- ☐ Strengthening IEC activities using posters, handbills, flyers, etc.
- ☐ Developing networks among relevant partners on strategies to build awareness, monitor iodized salt, and provide information on IDD.

**In the fifth and last task,** members within stakeholder groups share their insights and then reassemble into their country groups to construct action plans for both the long and short term in sustaining the elimination of IDD.

*"Bridges must be built between those that have the science and technology, those that deliver the services, and those that have the power to make the political and financial decisions."*

**- Glen Maberly,  
PAMM**



During the following eighteen months they hope to:

- ☐ Produce IDD films, T.V. spots, etc.
- ☐ Strengthen IDD surveillance as an element of the regular disease surveillance system.
- ☐ Establish a quality control system and monitor iodized salt at all levels.
- ☐ Include IDD and iodine related information in school curriculum as part of other health related issues.

They see barriers to the implementation of these plans coming from:

- ☐ Superstition and misconception
- ☐ Misinformation or lack of information
- ☐ Social and official inertia or sluggishness in accepting new ideas
- ☐ Other competing priorities
- ☐ Profit motive of business groups

*"There are few moments in time when there is a clear fork in the path of a major human endeavour. As we battle against the ancient and pervasive scourge of iodine deficiency, we are certainly at a turning point. Never before has the way to our goal been so clear or so near. Never before have we been able to see so clearly or so far."*

**- Rolf C. Carriere,  
UNICEF Bangladesh**

## **Bhutan**

The group from Bhutan sees a four prong strategy as the best path for their country:

- i) Universal salt iodization
- ii) Education
- iii) Monitoring
- iv) Quality Control

In the coming months, they will inform the government of the need for:

- ☐ A nationwide assessment (two years) of IDD
- ☐ A revitalization of information/communication activities (two years)
- ☐ Inclusion of IDD in school curricula (two years)
- ☐ A review of IDD control programmes with ICCIDD (six months)
- ☐ A meeting of the stakeholders with UNICEF Bhutan to follow-up on this meeting.



## India

The delegation from India will focus their efforts in six areas:

- i) Assuring universal availability of standard powdered iodized salt in consumer packs.
- ii) Enacting a comprehensive uniform law to prevent manufacture, sale, and use of non-iodized salt and supporting its strict enforcement.
- iii) Increasing quality control.
- iv) Taking a multisectoral approach to social marketing and increasing consumer awareness of IDD.
- v) Monitoring progress through the examination of routine health statistics and administration of special surveys.
- vi) Supporting compilation of statistics on the production, sale, and consumption of iodized salt.

In the next six months, they plan to:

- ☐ Increase advocacy efforts.
- ☐ Notify all states of the ban on non-iodized salt.
- ☐ Intensity effort to create a demand for iodized salt.
- ☐ Establish a monitoring system from production to consumption level.
- ☐ Involve small producers.
- ☐ Increase access to iodized salt.

Over the following eighteen months, they plan to:

- ☐ Review progress
- ☐ Enact legislation to make iodization of salt for animals compulsory.
- ☐ Enact legislation to make powdering and packaging of salt compulsory.
- ☐ Establish regional labs.
- ☐ Undertake surveys for elimination of IDD on pilot basis.
- ☐ Create several databases of the salt requirements of industry.

*"There is much unexplored potential for fortification within the private sector. Also the private sector has access to a wealth of knowledge and information that is not public knowledge. We need to harness and steer the energy and enthusiasm of the private sector and identify grounds for collaboration."*

**- M.G. Venkatesh Mannar,  
MI**



## Nepal

Nepal's strategy consists of focusing on:

- i) A multisectoral approach.
- ii) Enacting laws and enforcing them.
- iii) Developing a family-size salt package as the norm.
- iv) Increasing quality control.
- v) Monitoring salt production.
- vi) Raising awareness through the media and in schools.
- vii) Stabilizing the price of iodized salt.

Their first steps will be to form a national coordinating committee, to work on advocacy, and to promote legislation.

In 1995, they will also work on stabilizing prices, increasing national coverage, improving logistic support, establishing an effective monitoring system, and ensuring continuous mass awareness.

The group anticipates barriers to accomplishing their objectives coming from:

- ☐ a lack of financial resources
- ☐ social practices and taboos (ie. washing salt)
- ☐ the country's mountainous terrain, which makes transportation and distribution difficult.

## Pakistan

The delegation from Pakistan plans to develop a strategy which is multisectoral and which forges alliances between government, NGOs, and the private sector. They see the private sector as important in regulating the supply and demand of salt and in quality control. They will also look into incorporating material on IDD into educational curricula and the expansion of the existing programs to include other micronutrients.

They plan to foster the enactment of legislation, support national seminars on quality control and fortification, support the development of monitoring systems, and work on getting IDD into school curricula.

*"What is needed to achieve the goal of elimination of iodine deficiency is to encourage the consumer to use the iodized salt made so readily available instead of common salt."*

**- M. Zakir Hussain,  
Director of Programme  
Management,  
WHO-SEARO**



## Sri Lanka

The action planning of the delegation from Sri Lanka focused on several objectives:

- i) Supply of clean, iodized, packaged salt.
- ii) Quality control and monitoring.
- iii) Law enforcement.
- iv) IDD in school curricula.
- v) Alliances between private sector, government, and NGOs.
- vi) Provision of time on T.V./radio.
- vii) Perpetual commitment at highest political level from informed public pressure.

In the next six months, they plan to work on achieving:

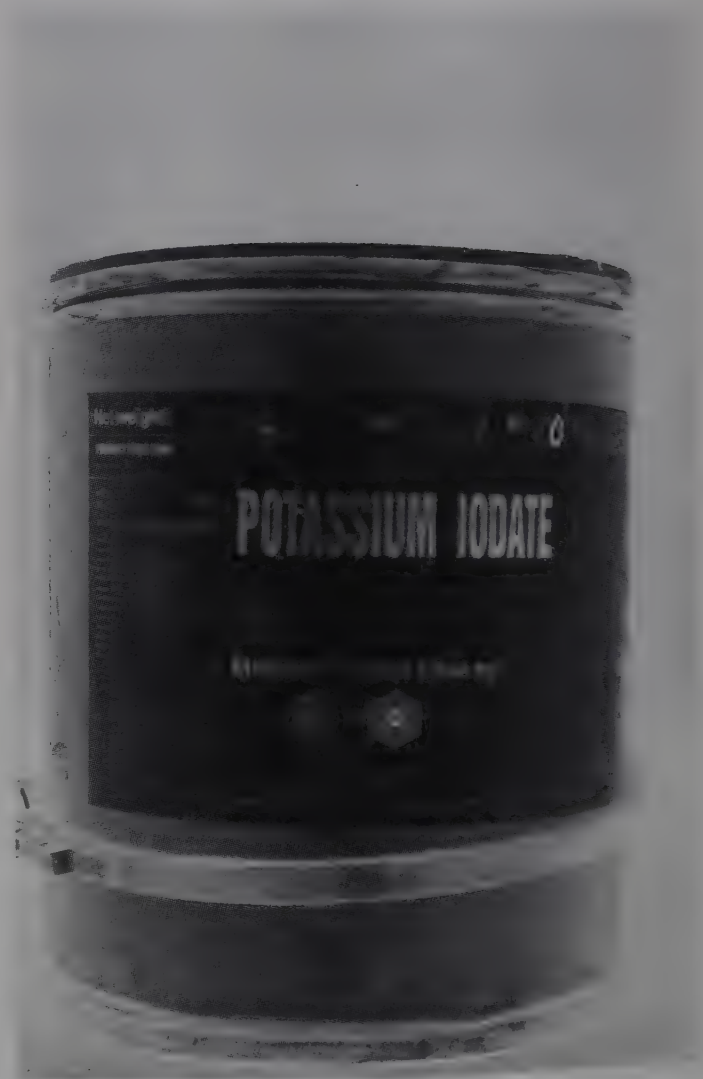
- ☐ Supply of clean, iodized salt packets (the first step).
- ☐ Enforcing existing laws.
- ☐ Time on both radio and T.V. to talk about IDD.

Over the next eighteen months, they will turn to other issues, such as:

- ☐ Quality control and monitoring.
- ☐ IDD in school curricula.
- ☐ Creation of an alliances between the private sector, government, and NGOs.
- ☐ Securing the continuing commitment at the highest political level.

They expect that roadblocks to achieving their objectives will come from:

- ☐ resistance of private sector salt manufacturers.
- ☐ difficulties with the transfer of technology.
- ☐ lack of public awareness of the seriousness of the issue.





## International Agencies

They key elements of the strategies of the international agencies are:

- i) Law enforcement.
- ii) IDD in school curricula.
- iii) Inclusion of the monitoring of IDD within other social monitoring programs.
- iv) Quality control management.
- v) Use of modern technology in communication and sharing information.
- vi) Advocacy based on ethical considerations.

In the next six months the agencies have set the following goals:

*"Communications are integral to all actions: to ensure understanding of the problem; to understand the role of each agency; to understand the need for constant quality control and assurance procedures, processes and products; to sustain the need for financial and other support once begun".*

- David P. Haxton

- ☐ UNICEF will try to make CRC part of the UNICEF mission statement.
- ☐ WHO will prepare and disseminate guidelines and technical advice in support of the initiative.
- ☐ CIDA will remove "emergency food aid" from its definition of nutrition.
- ☐ MI will insert IDD into the agenda of the Beijing Women's Conference and provide technical support for monitoring, regional training, and access to databases.
- ☐ Kiwanis will increase its focus on their IDD project.

Over the next two years:

- ☐ UNICEF will try to make nutrition, in all its forms, a top priority for UNICEF.
- ☐ WHO will stabilize political and financial support for MI programs in WHO report.
- ☐ CIDA will make health and nutrition a top priority.
- ☐ MI will continue database networking, increase access to the database, monitoring and training support, and encourage industry collaboration.
- ☐ Kiwanis will start planning for their next project.



## Immediately:

- ❑ UNICEF will persuade Dr. Carol Bellamy that UNICEF should continue to give priority to USI.
- ❑ WHO will finalize documentation on the safety of iodized oil.
- ❑ CIDA will finalize its IDD Asia monitoring component.
- ❑ MI will finalize its IDD Asia monitoring project, script writing, and advocacy material for Beijing.
- ❑ Kiwanis plans to conduct IDD workshops in Japan.

## ICCIDD

ICCIDD will focus its efforts in the coming year on advocacy; in particular, working to obtain political commitment within countries and at the international level. They will build alliances with other groups, including Kiwanis, private food producers, educators, and communicators. They will work for the advancement of scientific research and the application of technology. They will provide technical assistance for monitoring iodization, establish an independent evaluation system, and will provide training, using modern technology.

In the next six months, those from ICCIDD plan to:

- ❑ Adapt ICCIDD to respond to these needs.
- ❑ Insert IDD messages in major international fora.
- ❑ Produce further translations of the key manuals.
- ❑ Develop their training programmes related to IDD elimination.

## Regional Plans

The last part of the action planning process at the conference was to look at the possibility for regional cooperation in the campaign to eliminate IDD. The entire group agreed that a cooperative regional approach was necessary for the successful elimination of IDD. There was interest in focusing on price control in South Asia. Banning all trade of non-iodized salt and

*"We can become a success story but we all have to work together."*

**- A conference participant on developing regional plans**



South Asia. Banning all trade of non-iodized salt and developing uniform standards for salt quality and iodization were also suggested. There was also a desire to regionalize training about IDD. The group agreed that the fundamental issue is political - not financial. The respective Ministers of Finance need not be pressured on this issue. People wondered if adding IDD to the school curriculum could be done on a regional basis. They also believe that existing structures, rather than newly created organizations, should be used to raise awareness of the issue. The idea of developing a working group of people from WHO and UNICEF in each of the six countries with assistance from ICCIDD was positively received. The working group would review progress and pool resources.





# OUTCOMES OF THE CONFERENCE

*"Never before has the way to our goal been so clear or the goal so near."*

- Conference participant

As one attempts to assess the impact of this conference, it is clear that a completely accurate appraisal will only be possible after some time has passed, once intents begin to get translated into action and further into a substantial reduction in the prevalence of IDD in all the South Asian countries.

## Renewed commitment



The first conference objective was *to renew the commitment of the participants to the goal of eliminating IDD by 2000*. Many participants reported that they were inspired by the conference and are once again fully committed to the campaign to eliminate IDD. Many expressed this point on their evaluations of the conference. Others expressed it with much feeling during the "open floor" closing session. A high level of involvement was demonstrated by the excellent attendance at every session and by the extraordinarily high levels of energy maintained by the group over the three days.

## Alliances, Networks, and Linkages



The second stated objective of the conference was to forge new alliances and linkages. This was achieved within the country delegations and between the different stakeholder representatives who worked with each other for the first time ever. A broader sense of a community working towards the same goal in the same country was encouraged. Multiple new relationships were formed, including contacts between those in ICCIDD, who have a long term investment in these issues, and others, like salt producers, educators, and representatives from NGOs for whom eliminating IDD is only one of dozens of other priorities. Plans crystalized for all the country groups to continue working on the issue back home with the help of appointed coordinators to initiate meetings.





This approach of exploring a network of allies that many never knew existed, in a participatory and level environment will serve as a model for further collaborative efforts in each country.

In addition, all the participants had the opportunity to work with others from different countries that shared similar backgrounds, but that had different perspectives to offer, within the stakeholder groups. Participants learned from each other, traded ideas and strategies, and have resolved to continue to communicate across country borders and stakeholder boundaries.

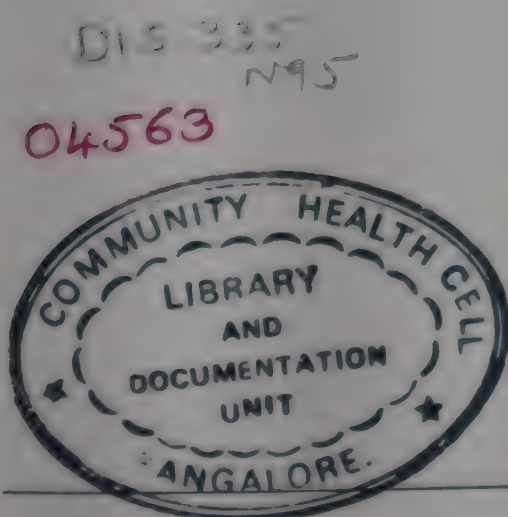
## Strategies

The third objective of the conference was to develop strategies for eliminating IDD and sustaining its elimination. Not only were country and agency strategies developed, but stakeholder groups also explored different kinds of strategies that were appropriate for them. While not all the key decision-makers were present in any country delegation, the fact that certain strategies were commonly espoused by most countries and the extent of the "Common Ground" indicates that there is a growing consensus about what needs to happen. This consensus will guide all those involved in working for the elimination of IDD.

A major result of the conference was the increased clarity that eliminating IDD is not a scientific or technical issue. Political and social actions are needed. Although this might have been apparent prior to attending the conference, it became even more obvious as the conference progressed. This clarity of understanding will shape every individuals' thinking and the day-to-day priorities in the near future.

## Discovering Common Ground

Another result of the conference was the discovery that there is a large amount of agreement about the best pathway to eliminate IDD. Rather than differing or conflicting views, there is consensus and a shared understanding of the seriousness of the issue and priorities. Before the conference, individuals did not know that so many others held views similar to their own.





Others who knew little about IDD before the conference received an education about IDD and what must be done. For example, all groups see a major strategy for eliminating IDD to be the development of curricula for schools.

## Optimism



Finally, the conference rekindled optimism as well as commitment. The campaign to eliminate IDD has been a long and slow process. Some of those involved reported that they had come to the conference discouraged and frustrated. Bringing people from a dozen countries together for three days with the sole purpose of thinking about IDD transformed attitudes.

## Individual Actions



At the closing session, participants were asked to say what action steps they were going to take as individuals. Comments ranged from "Tell my boss what I have learned," to "Inform the other salt producers in my country about why it is important to iodize salt." Change happens by small but continued actions and decisions made by individuals. We expect the efforts of this meeting will inspire thousands of individual actions and the ripples from the conference will continue for many years.

*"To witness the deep caring of so many others about this issue gave me new hope. I am going home with renewed energy."*

**- Conference participant**



# CONCLUSION

The strategy for management of sustained IDD elimination focuses on three essential issues:

- ⊕ **Ensuring a high quality product (i.e. iodized salt with appropriate iodine levels)**
- ⊕ **Ensuring that the management process is in place**
- ⊕ **Monitoring and tracking biological progress with respect to IDD status**

*"And of all of the things we have learned, there are two major lessons that stand out. The first is that no single agency can do it alone. IDD is a health problem, but its solution does not lie in the health sector. It lies with many others. The second lesson is the importance of optimism and hope. Believing is seeing. Only when we truly believe that it is possible to do something do we begin to look for ways to do it."*

**- Chandrakant S. Pandav,  
ICCIDD**

If the Partnership to End Hidden Hunger Conference is an ocean, then these are its waves:

- ≈ Commitment from allies to include the elimination of IDD as a priority in their operations.
- ≈ Creation of a nucleus of persons from each country from a range of professions which can build the national demand for sustainability.
- ≈ Demonstration of the efficacy of mutual support by private and public sector entities to a public health venture
- ≈ Expanded comprehension of the potential for fortification of different foodstuffs.
- ≈ Opportunity for creating alliances for the larger goal of micronutrient malnutrition.
- ≈ Creation of potential for increased technical and other exchanges between countries (including trade in micronutrient fortified products)



# DREAM INTO ACTIONS

The third part to the Partnership to End Hidden Hunger Conference (post-Dhaka meeting) will take place within each "South Asian" country. The objective of this meeting will be to assess the commitments made at Dhaka and the activities that have since taken place to meet these commitments. Further regular meetings and activities will continue to be charted at this point to ensure the maintenance of networks.

At the time of publication of this report, many countries had voluntarily sent in progress updates made with respect to the short term action planning goals of the conference. The efforts of Nepal, Sri Lanka, and Maldives are examples of how the conference has already motivated action. All the other countries are also well on track.

## **Nepal**

*The Nepal team that attended the Partnership to End Hidden Hunger workshop has initiated a number of activities since their return from the conference. A meeting was held at the National Planning Commission (NPC) in April 1995 where a draft USI plan of action was developed in conjunction with the National Planning Commission (NPC), National Nutrition Coordinating Committee (NNCC), and UNICEF. Special focus was given to the logistical aspect of salt iodization, proper packaging and distribution, social mobilization and communication, and monitoring and evaluation. A Task Force to see that the proposed plan of action will be implemented as planned includes stakeholders from the NPC, Ministry of Health, STC, UNICEF, Radio Nepal, and NTV. The NNCC has prepared a report on the status of IDD problem in Nepal and UNICEF has made available all its reports on IDD and iodized salt. Draft legislation on salt iodization is being revised by NPC with input from copies of legislation from other South Asian countries and will go to Parliament as soon as possible.*

*"This is one of those times when only dreamers will turn out to be practical people."*

**- Lewis Mumford**



A second meeting was held in May 1995 at the NPC where the problems of 22 remote and inaccessible districts were discussed, including poor road conditions, remoteness, lack of warehousing facilities, poor packing, high goitre endemic area, costly air transport, supply meeting only 7-25% of demand, and iodized oil injections. Draft booklets, flyers, and posters for policy makers, health workers, teachers, salt traders, and general public were also reviewed for input. Near future action proposed on iodized salt includes: increasing the iodine content in salt to 50 ppm, increasing availability and accessibility of iodized salt, improving packing and warehouse facilities, and providing iodized oil capsules and transport subsidy until 1997 when USI will be more effective. Long term strategies discussed include: improving transport subsidy, banning bargara rock salt and non-iodized salt, and building roads.

A third meeting was scheduled for early June 1995 at the NPC.

*“The dream drives the action.”*

- Thomas Berry

### **Sri Lanka**

One month after the Partnership to End Hidden Hunger Conference, a meeting of all parties concerned with salt iodization, marketing, distribution, monitoring, information, education, and training was held by the Deputy Minister of Finance, Planning, Ethnic Affairs, and National Integration (MFPEA&NI) and other senior officials. Of particular importance was the explicit commitment of the 280 private salt manufacturers to iodize their salt with the support of the Ministry of Industrial Development. After initial reluctance to iodize salt, representatives of the private salt producers were entrusted with a UNICEF-supported salt iodization plant and potassium iodate. Concessions to motivate Puttalam manufacturers to produce iodized salt will be made.

On the communications front, the Sarvodaya started the process of disseminating information to all staff on the insights gained from the Partnership to End Hidden Hunger Meeting and to heighten their awareness on IDD control. The Ministry of Health trained 81 Public Health Inspectors and Divisional Directors of Health Services in April and May 1995 on IDD and monitoring iodine content of salt. 7000 copies of an IDD information booklet in three languages were distributed to Public Health Midwives and health staff.



The "Ending Hidden Hunger" videotape is being distributed to all 23 regional Directors of Health Services for advocacy and training programmes. A comprehensive salt iodine monitoring scheme using both field test kits and titration analysis will be fully operational by the end of 1995.

Major tasks planned include: provision of supplies and equipment to the Salt Industry to improve quality control, training programmes for Public Health Professionals, launching IDD media campaign, and creating awareness at the village level through Sarvodya.

## **Maldives**

Although Maldives was not directly represented at the conference, those recommendations made for all of South Asia helped to motivate action in this country. Initially, it was assumed that IDD was not a public health problem in Maldives, however, a very recent survey has proved otherwise. The Department of Public Health in association with UNICEF undertook a countrywide survey in June-July 1995 to assess the prevalence of IDD and estimate urinary iodine levels in a subsample of the population. The survey adopted the "EPI-30 cluster" methodology with sampling 30 clusters chosen from 200 islands. A total of 2834 school children (aged 6 to 12 years) were examined and the total goitre prevalence rate was estimated to be 23.6% (Grade 1 = 22.5% and Grade 2 = 1.1%). The median iodine level was found to be 6.7 micrograms/decilitre. Maldives imports its total requirement of salt from India, Sri Lanka, Thailand, and Singapore and so it is feasible to introduce iodized salt in the country. The experience of other South Asian countries can be applied to introducing an IDD control programme and getting all the stakeholders in this country involved.



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*It has become clear that a focal point to communicate progress made with respect to the goals set out in the Partnership to End Hidden Hunger conference would be very valuable. Stakeholders could continue to share ideas, information, contacts, and projects to further build on the alliances made. Suggestions include a "Partnership to End Hidden Hunger" country newsletter, a periodic bulletin, or an online electronic mail/interactive bulletin board for those with access to a computer with a modem.*

*We welcome your further suggestions in developing these ideas with the aim of encouraging the Partnership within your country and the region and thank you for your continued enthusiasm and dedication.*

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Please send communications to :

Dr. Chandrakant S. Pandav  
Regional Coordinator (South Asia & Pacific), ICCIDD  
c/o: Centre for Community Medicine  
All India Institute of Medical Sciences,  
New Delhi - 110-029, India  
Tel. & Fax : 91-11-6863522



# Thank You :

CANADIAN INTERNATIONAL DEVELOPMENT AGENCY  
(CIDA)

INTERNATIONAL COUNCIL FOR CONTROL OF IODINE  
DEFICIENCY DISORDERS (ICCIDD)

MICRONUTRIENT INITIATIVE (MI)

UNITED NATIONS CHILDREN'S FUND (UNICEF)

WORLD HEALTH ORGANIZATION (WHO)

GOVERNMENT OF BANGLADESH

UNICEF REGIONAL OFFICE, KATHMANDU

UNICEF BANGLADESH

IBIS CONSULTING GROUP, CAMBRIDGE, USA

COMMUNICA, DHAKA

CENTRE FOR COMMUNITY MEDICINE, ALL INDIA  
INSTITUTE OF MEDICAL SCIENCES, NEW DELHI

DHAKA SHERATON, DHAKA



# APPENDIX A

## Tracking Progress Towards USI

### - South Asia Country Reports

All of the countries in the South Asia region - Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka - have reported IDD as a public health problem. The current status with respect to Universal Salt Iodization (USI) in these countries has been provided by the relevant UNICEF Country offices.

#### **Bangladesh**

The national IDD survey in Bangladesh conducted in 1993 by Dhaka University in collaboration with ICCIDD and PAMM with support from UNICEF reported a goitre prevalence rate of 47%, that 68.9% of the population had urinary iodine levels less than 10 g/dl, and that 500,000 people had severe neurological deficiency syndrome (cretins). The "Iodine Deficiency Disease Prevention Act" of 1989 proclaims the universal iodization of edible salt for human and domestic animals. The Government through legislation has declared that from February 1995, production and trading of non-iodized salt in the country is prohibited. Local fabrication and production of good quality salt iodination plants (SIP) has been done. A total of 253 out of 265 salt refineries are now equipped with SIP. With the help of the Salt Mill Owners Association, day-to-day salt monitoring of iodine levels at the production level is becoming a reality. Simple and low cost kits have been developed for the estimation of iodine in salt. Over 200,000 of these have been widely distributed, including 40,000 primary schools. With the involvement of private professional agencies, a communications strategy and information package has been developed for the mass media. As an interim measure, a 3.5 million target population in 38 hyper-endemic areas was covered with iodized oil injections from 1986-92. The production of iodized salt has been gradually increasing from 19% in December 1994 to 62% in June 1995. With the installation of SIP, Bangladesh is steadily moving towards reaching the mid-decade goal of USI.

- Dr. T. O. Kyaw-Myint,  
Mr. Mohammed Baquer, UNICEF Dhaka



## Bhutan

A nationwide study in 1983 reported the disturbing findings of a 65% goitre prevalence, a high prevalence of cretinism, and unacceptably low urinary iodine levels in much of the population. Alarmed by the study findings, the government formulated and introduced a coordinated, multi-sectoral programme to control IDD. This included iodization of all edible salt and iodized oil injections to a selected high risk population groups, monitoring the iodine content of salt, community education and evaluation of the programme. Legislation prevents the importation or sale of salt which has not passed through the Bhutan Salt Plant, a government turned private salt plant which controls storage and distribution of salt for the country. A nationwide survey was again conducted in 1991-1992 which reported a decrease in goitre prevalence. Over 80% of women and children had acceptable urinary iodine levels (equal to or more than 10 g/dl and acceptable TSH levels (TSH less than 5  $\mu$ IU/l of whole blood). 97% of salt samples taken at the household level had iodine more than 15 mg/kg, the recommended levels at consumption. Bhutan has already achieved the mid-decade goal of USI and efforts are on to sustain it hereafter.

- Dr. Ugen Doma, UNICEF Thimphu

## India

The National Goitre Control Programme launched in 1962 was intensified with UNICEF support. Advocacy efforts led to redesignation of the programme as, : National Iodine Deficiency Disorders Control Programme" emphasizing on the wider implications of IDD. An action plan with focus on increasing production of iodized salt to meet the goal for iodized salt and establishing a district level system for monitoring iodine in salt was developed. As a result of advocacy, four major salt producing states (Gujrat, Tamil Nadu, Rajasthan and Andhra Pradesh) producing 85% of salt have issued ban-notification against the sale of non-iodized salt. Over 300 manufacturers and traders who together produce 95% of iodized salt participated in the regional orientation and sensitization workshops on IDD. As a result, iodized salt production increased by 25% - presently estimated to be 3.4 million tons against the total requirement of 5 million tons. The country, however, has installed capacity to iodize the entire edible salt required in the country. Increased attention has been directed at improving the monitoring of iodine levels at the production level by training technicians of the Salt Department. Mobile laboratories are put in operation to monitor the quality of iodized salt in remote places. Management Information System (MIS) at the consumer level has been established at four states, 15 more states will be added to these. As per MIS, the availability of iodized salt has increased from 30% - 50% in 1993 to 60% - 80% in 1994. Now the focus is to increase the production of iodized salt to reach in the goal of USI in 1995 and ensure the availability of iodized salt to 80% of the population in the country.

- Dr. Sheila Vir, UNICEF Delhi



## Maldives

It was assumed that IDD is not a public health problem in Maldives. This was probably based on the fact that staple diet of the local population consist of sea fish, a rich source of iodine. However, no systematic surveys were carried out to assess IDD problem. The Department of Public Health in association with UNICEF undertook a countrywide survey in June-July 1995, to assess the prevalence of IDD and estimate urinary iodine in a sub-sample of the population. The survey adopted the "EPI-30 cluster" methodology with sampling 30 clusters chosen from 200 islands. A total of 2834 school children (aged 6 to 12 years) were examined and the total goitre prevalence rate was estimated to be 23.6% (Grade 1 = 22.5% and Grade 2 = 1.1%). It is evident that IDD is a public health problem in the Maldives. A total of 316 urine samples were analyzed for iodine content. The median urinary iodine level was found to be 6.7 micrograms/dl and 65.5% of children had urinary iodine levels below 10 micorgrams/dl. Maldives imports its total requirement of salt from India, Sri Lanka, Thailand, Singapore etc. Thus, it is feasible to introduce salt in the country.

- Dr. Chandrakant S. Pandav, ICCIDD with UNICEF Maldives

## Nepal

Surveys carried out since 1965 in Nepal have reported that IDD is a major public health problem in the whole country, The Government launched a Goitre Control Project in 1973. It is responsible for procurement, iodization and distribution of salt from India. In 1979, Goitre and Cretinism Eradication Project was initiated for iodized oil injection campaign in 40 mountainous and hilly districts. So far more than eight million injections (repeated after every 5 years) have been given and even in remote areas over 85% of target population (all people less than 45 years) has been covered. While the iodized oil programme has been resounding success, iodized salt programme has been beset by logistical problems. A series of steps have been taken to strengthen the iodized salt programme.

The Nutrition Planning Commission of the Government through National Nutrition Coordination Committee since April 1995, is reviewing activities every month. The IDD Plan of Action focusing on issues related to IDD elimination, USI & sustainability has been formulated and a Task Force is appointed to monitor its implementation. A draft plan of action on USI has been developed with special focus on logistical aspects of salt iodization, proper packaging and distribution. The draft legislation on salt iodization has been prepared and will be placed before the Parliament for its approval. Some of the activities identified for priority action are increased levels of iodine in salt to 50 mg/kg, increased availability and accessibility of iodized salt, improved packaging, improved warehouse facilities, provision of iodized oil capsules until 1997 and continuation of transport subsidy until 1997.

- Dr. Qussay Al-Nahi, UNICEF Katmandu



## **Sri Lanka**

IDD has been studied in Sri Lanka since 1940. Over 70% of population are living in known iodine deficient areas. In 1989 a survey carried out among 59,000 children from 37 school in 17 out of 24 districts has reported goitre prevalence between 14% (boys) and 23% (girls). The concept of Universal Salt Iodination was accepted by the government in 1993, and legislature has been passed in January 1995 to ensure that only iodized salt is available and sold in the country. In May 1995, 280 private salt manufacturers that account for 30% of production of edible salt gave a commitment to conform to the government policy of USI and produced iodized salt. A salt iodination plant and potassium iodate procured with UNICEF assistance was handed by Government to private salt producers. The Ministry of Health has trained 81 Public Health Inspectors (PHIs) and some of the Divisional Directors of Health Services on IDD and monitoring of iodine content in salt in April-May 1995. A total of 7,000 copies of information booklet on IDD have been distributed to 4,000 Public Health Midwives and health staff in 23 districts for use in interpersonal communication with families and community members. Sarvodya, an NGO is actively involved in IDD activities. Thus efforts are being made by the different sectors towards achieving USI in Sri Lanka.

**- Dr. Gamini Gunewardene, Medical Research Institute with UNICEF Colombo**

## **Pakistan**

Numerous local surveys have shown that goitre, and hence IDD, is a major public part of the country has long been considered as one of the most highly IDD endemic areas in the world with rates of cretinism as high as 12% in some valleys of Baltistan. A 1994 study of four major cities in Pakistan found that, on an average, 72% of newborns had elevated levels of TSH. The results seem to indicate that IDD is a major public health problem with more than fifty million people affected by some form of IDD or are at risk of it. Since 1987, iodized oil injections and capsules have been administered in highly endemic areas which was subsequently replaced with more effective iodized salt. In the absence of a government mechanism for providing technical assistance to the private sector for salt iodization and for undertaking an IDD awareness campaign and generic product advertising, an Iodized Salt Support Facility (ISSF) was established in March 1994 as an integral part of the UNICEF-supported government programme. The ISSF targets include: 80% of households consuming iodized salt by the end of 1995 in selected areas. As of June 1995, 44% of the country's population was consuming iodized salt.

**- Mr. Imran Zafar, Social Marketing Pakistan Ltd. with UNICEF Islamabad**



# APPENDIX B

## List of Participants

The following is list of participants from the Partnership to End Hidden Hunger Conference in Dhaka from 9 - 12 April 1995 and the Iodine, Nutrition, and Human Development Scientific Symposium that took place simultaneously. The list reflects the variety of countries, organizations, and people that came together to work towards eliminating IDD. We sincerely regret any omissions made.

### ALGERIA

1. Dr. Moulay Benmilloud, ICCIDD.

### AUSTRALIA

1. Dr. Will Blechman, KIWANIS.
2. Dr. Basil S. Hetzel, ICCIDD.
3. Dr. Duncan McKenzie, KIWANIS.
4. Dr. Paulas Santosa, AIDAB.

### BELGIUM

1. Prof. F. Delange, Hospital St. Pierre.
2. Dr. C.H. Thilly, CAMUBAC Goitre.

### BANGLADESH

1. Mr. Nurul Alam,  
Director of Mass & Pub Edn.
2. Mr. Syed Shujauddin Ahmed,  
Ministry of Info.
3. Mr. Hasan Morshed, BSCIC.
4. Dr. A.M. Zakir Hussain,  
Directorate of Health Services Govt. of  
Bangladesh.
5. Prof. Sultana Zaman,  
Protibondhi Foundation.
6. Mr. Rolf C. Carriere, UNICEF
7. Dr. T.O. Kyaw-Myint, UNICEF.
8. Ms. Gretchen Goodale, UNICEF.
9. Mr. Baquer, UNICEF.
10. Mr. Farid Uddin.
11. Mr. Anish Barua, FSC.
12. Prof. Qamruz Zaman,  
Member, Parliament of P.R. of Bangladesh.
13. Mr. Faziur Rahman, MOH&FW.
14. Mr. Alaur Rahman, BSCIC.
15. Mr. Shafiquel Islam, GOB.
16. Mr. Mohammad Shahidullah,  
Pvt. Sector Salt Mills.
17. Dr. M.A. Majed BMA.
18. Dr. Sufia begum, IPHN.
19. Dr. Rusdi Aliuddin, WHO.
20. Dr. W. Hardjotanojo, WHO.
21. Mr. Anwarul Azim, Communica.
22. Mr. Abdullah Zafar, Communica.
23. Dr. Anwar Javed, Communica.
24. Ms. Syeda Badrun Nahar, Communica.
25. Ms. Hafeza Khan, Communica.
26. Mr. Irfanul Hoq, Communica.
27. Ms. Shereen Khan, UNICEF.
28. Ms. Furlado, UNICEF.
29. Mr. Shehzed Noorani, UNICEF.
30. Mr. Pradeep Palma, UNICEF.
31. Mr. A.K.S. Kamal, UNICEF.
32. Mr. Mohammad Mizan AVICOM.
33. Mr. Mohammad Salim, AVICOM.
34. Mr. Fazlul Hoque, AVICOM.
35. Mr. A.N.M. Eusuf,  
Principal Secretary to the Hon'ble Prime  
Minister, Prime Minister's Office.
36. Mr. Sayed Ahmed,  
Ministry of Health & Family Welfare.
37. Mr. Fazlur Rahman,  
Ministry of Health & Family Welfare.
38. Mr. Azizur Rahman,  
Ministry of Health & Family Welfare.
39. Mr. M. Asafuddowlah,  
Ministry of Commerce.
40. Mr. A.H.M. Abdul Hye,  
Ministry of Industry.
41. Dr. Ekram Hussain,  
Ministry of Information.



42. Mr. Uzzal Bikash Dutta,  
Public Health.
43. Mr. Rezwan Hussain Siddique,  
Dy. Press Secretary to the PM.

#### BHUTAN

1. Dr. Kees Goudswaard, UNICEF.
2. Dr. Kunzang Jigmi,  
Royal Cort. of Bhutan.
3. Mr. Singan Dupka,  
Food Corporation of Bhutan.
4. Mr. Rinzin Namgyel, YHS.
5. Mr. Naichu,  
Bhutan Chamber of Commerce & Industries.
6. Mr. J.B. Dahal, APO, Bhutan.
7. Mr. Dhendup Choni,  
Ministry of Agriculture.
8. Mr. Nim Karma Sherpa, DCC.
9. Mr. Kesang Wangchuck,  
M/s Bhutan Iodisation Plant (Selljet TSA).
10. Mr. Kezano Wangahuk,  
Bhutan Salt Iodization Plant.

#### CAMEROON

1. Dr. D. Lantum,  
Uni. Centre for Health Services.

#### CANADA

1. Dr. M.G. Venkatesh Mannar, MI.
2. Dr. Sonya Rabeneck, CIDA.
3. Mr. Rashid Ahmed, ICCIDD.
4. Ms. Jenny Cervinkas, MI.
5. Dr. Maro Glard,  
Communication & Development.

#### CHINA

1. Prof. Zu-Pei Chen, MU.
2. Prof. M.A. Tai, MU.

#### FRANCE

1. Mr. Claude Ciupek, Guerbet.

#### INDIA

1. Dr. Indira Chakravarty, WHO.
2. Ms. Nilima Chawla, ICCIDD.
3. Dr. Sheila Datt, MOHFW.
4. Mr. R. Mohan, Govt. of India.
5. Dr. Chandrakant S. Pandav, ICCIDD.

6. Mr. R. Prakash, Office Salt Commissioner.
7. Mr. L. Prasad, MOH&FW.
8. Dr. Prema Ramchandran,  
Planning Commission.
9. Mrs. H.K. Sawhney,  
Confed. of Indian Consumer Organisation.
10. Ms. Binoos Sen, MOHRD.
11. Dr. Alok Shukla, RGTMOIDD.
12. Mr. S. Sundaresan,  
Office of the Salt Commissioner.
13. Dr. Shiela Vir, UNICEF.
14. Ms. Hema Viswanathan, ICCIDD, SRI
15. Dr. R. Sankar, ICCIDD.
16. Dr. Jotna Sokhey, MOH&FW.
17. Dr. Zakir M. Husain, WHO SEARO.
18. Ms. Pratibha Karan, MOI.
19. Dr. M.G. Karmarkar, ICCIDD.
20. Mr. Madan Lokur, ICCIDD.
21. Mr. John Motha, Pvt. Salt Sector.
22. Mr. Krishna Murarlal Agarwal,  
Pvt. Salt Sector.
23. Dr. V. Ramalingaswami, ICCIDD.

#### INDONESIA

1. Dr. Robert Djokomoeljanto, ICCIDD.
2. Dr. Benny Kodyat,  
Directorate of Comm Nutr. (MOH).
3. Dr. Dini Latief, Govt. of Indonesia.
4. Dr. S.L. Leimena, Independent Specialist.
5. Dr. I.B. Abra Kusuma,  
Min. of Industry, Indonesia.

#### KENYA

1. Dr. F.P. Kavishe,  
Unicef Eastern & Southern Africa, Nairobi.

#### MYANMAR

1. Dr. Moe Tun, MOH, Natnl. Nutrition Centre.

#### NEPAL

1. Dr. Qussay Al-Nahi, UNICEF.
2. Dr. B.D. Chataut, MOH.
3. Mr. Peter Chen, UNICEF.
4. Mrs. Chen, Wife of Mr. Chen.
5. Mr. Urban Jonsson, UNICEF ROSA.
6. Mr. H.B. Malla, STC.
7. Mr. Shiva Bhakta Sharma, NPC.
8. Mr. Shailendra Raj Sharma, Radio Nepal.
9. Mr. M.R. Maharajan STC.
10. Tenzin Choeda,  
Ministry of Trade & Industry.



## NIGERIA

1. Mrs. Margaret Asuquo,  
Union Dicon Salt Planning.
2. Dr. O.L. Ekpechi, U. Nigeria.

## PAKISTAN

1. Mr. Abrar Hassan,  
National Foods, Karachi.
2. Mr. Dana Hovig, UNICEF.
3. Mr. Mohammad Ishaq, Govt. of Pakistan.
4. Mr. Zahid Majeed, National foods,  
Karachi.
5. Ms. Birthe Pedersen, UNICEF.
6. Dr. Habbullah,  
Govt. of Pakistan Nutr. Plan & Dev. Div.  
Punjab.
7. Mr. Abdul Halim Khattak,  
Govt. of Pakistan, NWFP.
8. Mr. Jim Mayrides, UNICEF.
9. Mr. Imran Zafar,  
Iodized Salt Supp. facility, SMP.

## RUSSIA

1. Dr. Gregory Gerasimov,  
Russian Endo. Research Centre.

## SOUTH AFRICA

1. Mr. Lorenzo Locatelli - Rossi,  
Salt Technologies.

## SRI LANKA

1. Hon'ble Mr. Fernandopulle Vayra,  
Dy. Minister Planning, Ethnic Affairs &  
National Integration.
2. Mrs. L.P. Kodikara, MOID.
3. Mr. A.B. Leelasena, MOFPEA&NI.
4. Mr. B.E.R. Rodrigo, MOH&SS.
5. Mr. Buweneka Smarasekara,  
Lanka Salt Ltd.
6. Mr. Gamini Gunawardena,  
Medical Research Institute.
7. Mrs. Priscilla Welikala, Sarvodaya.
8. Mr. B.H. Samarasekera,  
Lanka Salt Limited.
9. Mr. Jeyaraj FernandoPulle,  
Govt. of Sri Lanka.
10. Dr. D.G.R. Gunawardene,  
Ministry of Health.

## UNITED NATIONS

1. Mr. Barbara Underwood, WHO.

## USA

1. Dr. J.T. Dunn, U of Virginia.
2. Dr. Katherine Esty, FSC.
3. Dr. David Haxton, ICCIDD.
4. Prof. Jack Ling, Tulane University
5. Prof. Glen Maberly, PAMM, Emory  
University.
6. Mr. Gilbert Steil, FSC.
7. Mr. S. Pittman, ICCIDD.
8. Mr. James A. Pittman, ICCIDD.
9. Mr. Eduardo A. Pretell, ICCIDD.
10. Mrs. Anna Maria Pretell, ICCIDD.
11. Dr. John Stanbury, ICCIDD.

## VIETNAM

1. Dr. M. Coppens, C. Goitre Proj.
2. Dr. Nguyen Thi, NGA, Natni IDD Prg.

## ZIMBABWE

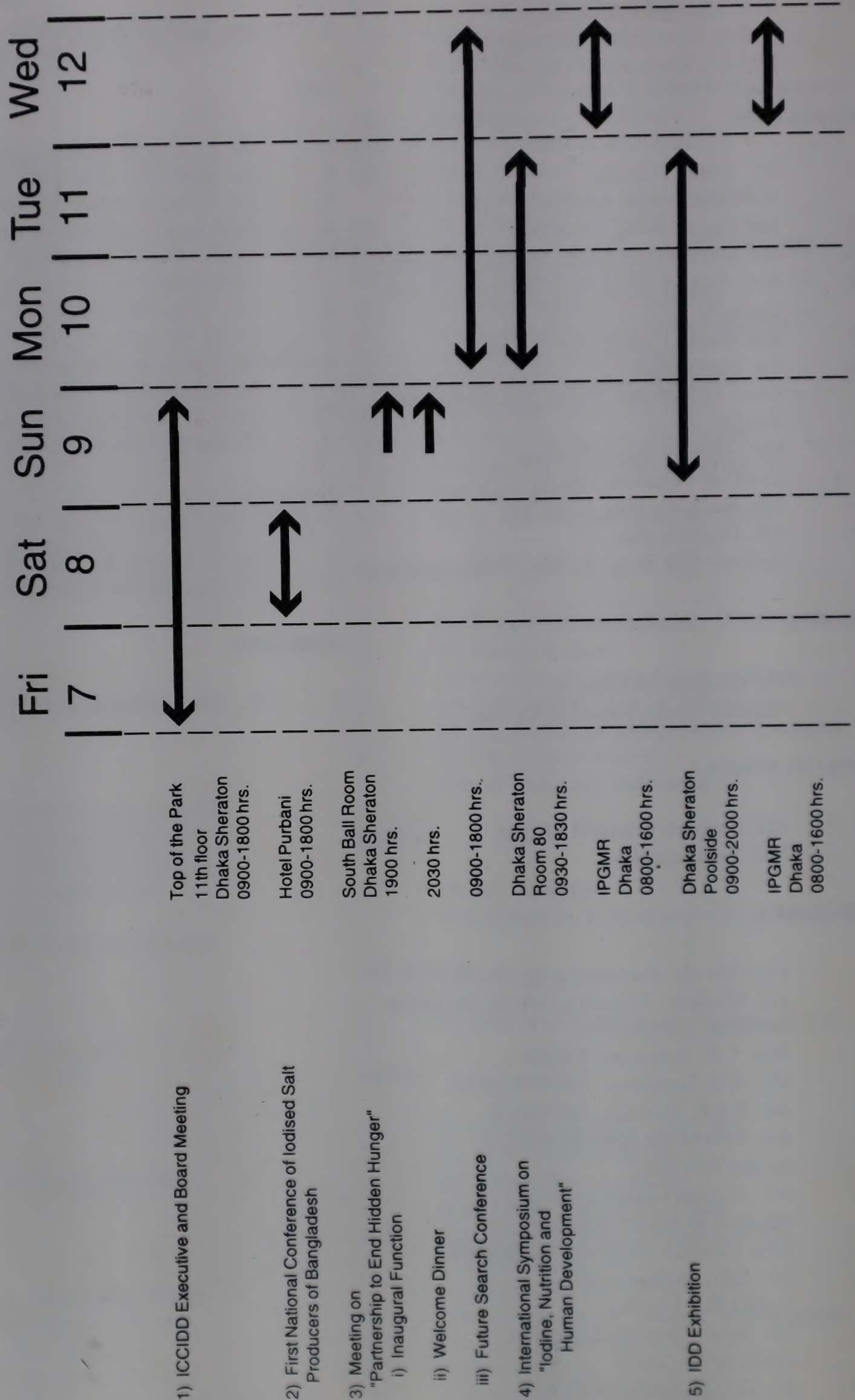
1. Dr. Judith Mutamba, MOH&CW.



# APPENDIX C

## Schedule of IDD Events

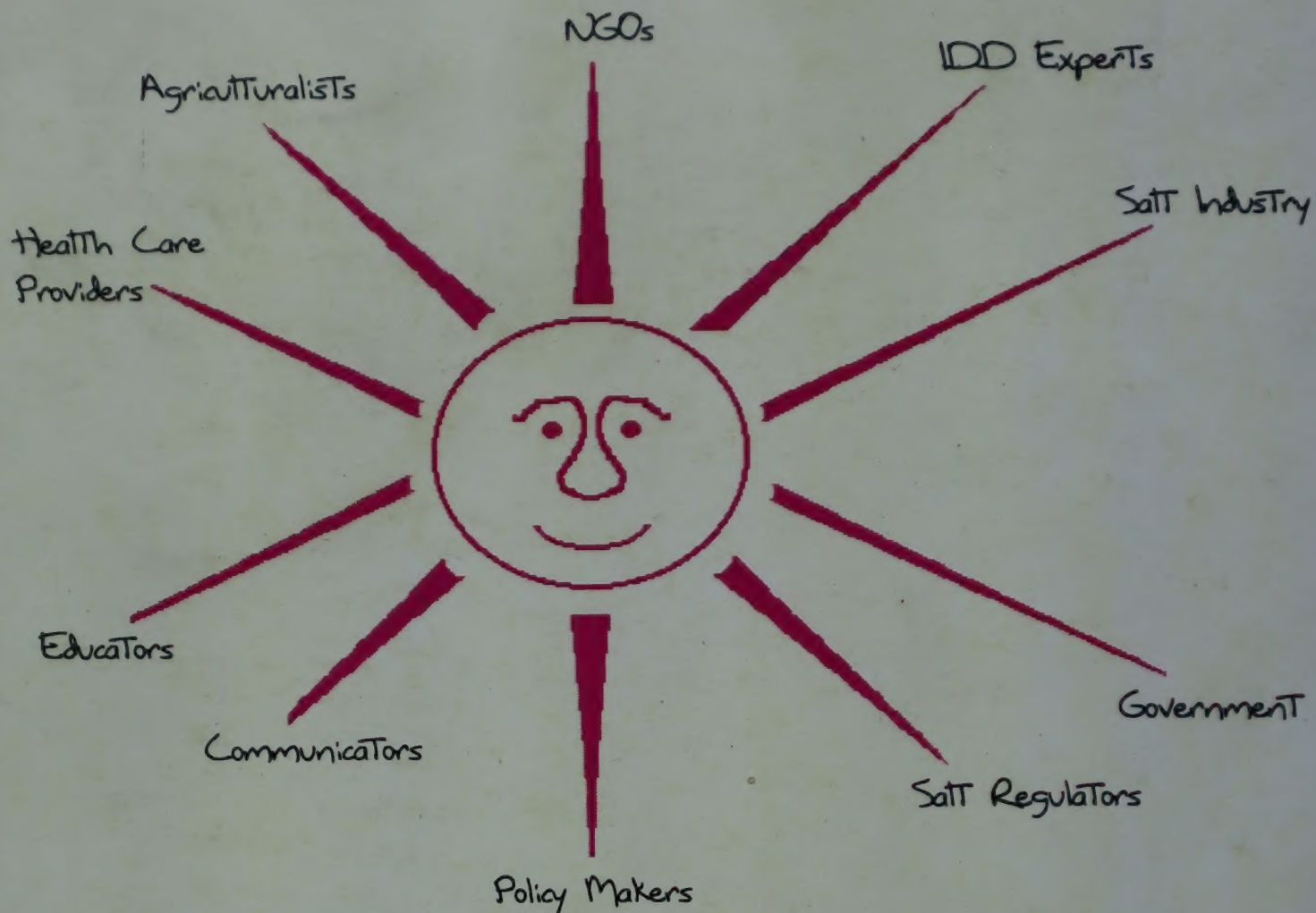
Held in Dhaka 7-12 April 1995











IDD Elimination by 2000

CANADIAN  
INTERNATIONAL  
DEVELOPMENT  
AGENCY  
(CIDA)

INTERNATIONAL  
COUNCIL  
FOR CONTROL  
OF  
IODINE DEFICIENCY  
DISORDERS  
(ICCID)

MICRONUTRIENT  
INITIATIVE  
(MI)

UNITED NATIONS  
CHILDREN'S FUND  
(UNICEF)

WORLD HEALTH  
ORGANIZATION  
(WHO)

GOVERNMENT  
OF  
BANGLADESH